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Marine Corps Gazette



TACTICAL AIR SUPPORT OF GROUND FORCES

Marine Corps Gazette

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COVER



In a little over three decades, Marine Air has progressed from using lumbering "Jennies," Fokkers and Ford Tri-Motor aircraft to speedy jet Furies, Panthers and Banshees. Back in the days when wooden "props" pulled wire-strutted "crates" over Nicaraguan jungles, air support for the infantryman was a haphazard, hedge-hopping affair. But the men who experimented with "skivvy" shirts for air panels and "clothes line" communications' pickups, set the pattern and doctrine that has given us the precision teamwork required for our integrated close-air support today. The cover photograph was made at the Marine Corps Air Station, El Toro, by SSgt Borgman.

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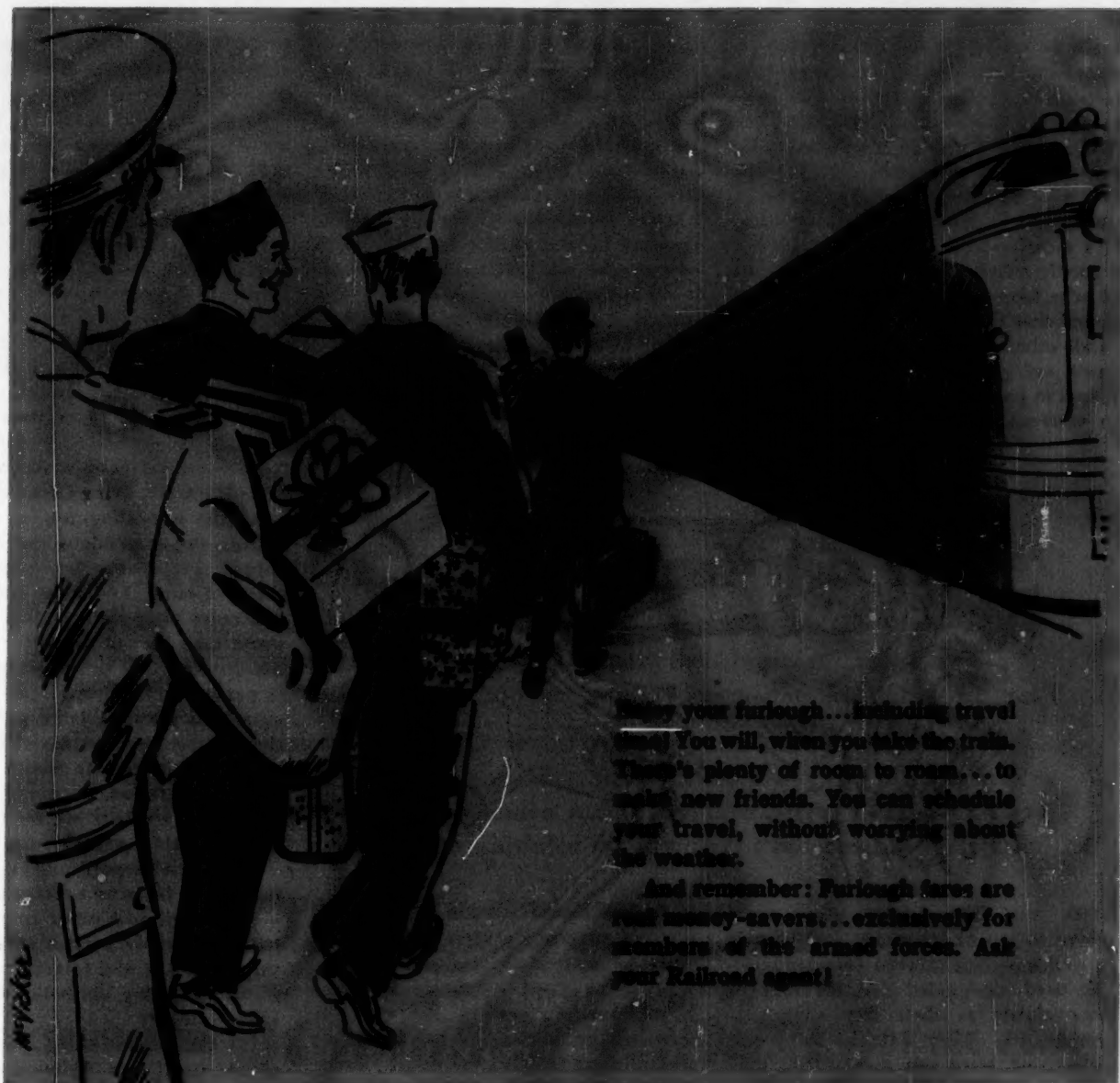
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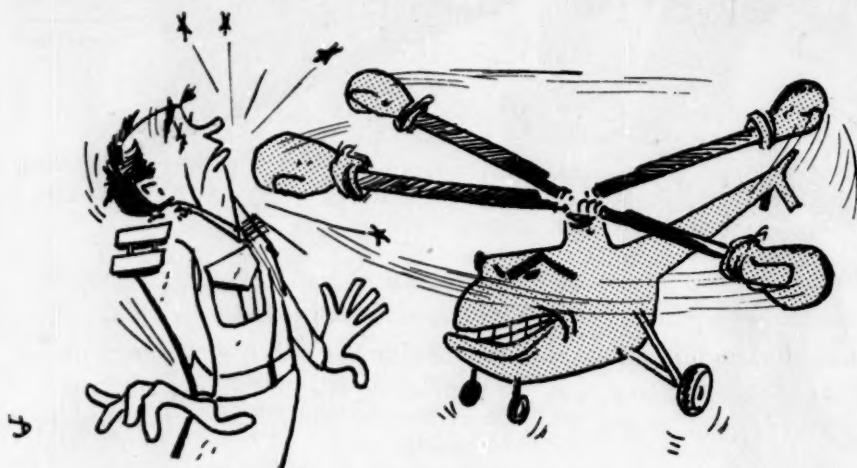
... Re Capt Steele's letter to *Message Center* "Hold On." (Oct. '55.) His last paragraph, at least, contains accurate information, i.e., "The 'copter is here to stay—but let us be careful in establishing the doctrine for its use." Okay, Captain, let's.

Capt Steele professes to speak for all Naval Aviators when he flatly states, and again we quote, "Naval aviators do not want to fly helicopters." That is a rather large, naive and, to say the least, unconfirmed statement. There are undoubtedly NAs who do not desire to fly helicopters, as there are also possibly NAs who do not particularly care to fly transports, or dive bombers, or even, let's face it—jets! There are, however, a goodly number of NAs here at MAG-26 who have personally told the undersigned that they prefer helicopter flying to all other. They are pilots who have flown every type of aircraft from biplanes to jets. Neophytes with 300 hours to veterans with a total in excess of

any NA who is not now a designated helicopter pilot may reasonably expect to become one during his flying career.

Helicopters are as difficult to fly as fixed-wing aircraft, as any pilot who has flown both will confirm. As helicopters become larger and more complex, pilots must become better trained and even more experienced.

Operational control of helicopter squadrons is normally vested in the Division, with employment down to the battalion level. The decision to fly or not to fly a certain mission is the decision of the Commanding General of the Division, as advised by his Air Officer. The final analysis as to the feasibility of the mission rests with the pilot. Absolute control of the helicopter can no more be the prerogative of the infantry company commander than the control of a destroyer or an artillery battalion as an organic unit. Each unit must be entrusted to an officer skilled in their use and experienced in their capabilities. The battalion level is considered



6,000. . . . The veteran pilots could return to jets or transports and be able to perform their mission commendably. Our newly designated NAs, are from the same classes as their fixed-wing contemporaries. They were all fixed-wing cadets and were not diverted to helicopters until after finishing basic. They received identical instruction until such time as they were assigned to rotary wing aircraft.

Every Marine pilot has traditionally been expected to fly any and all types of aircraft to which he is assigned. Ergo,

to be the lowest echelon of command wherein supporting arms can continuously be successfully controlled.

Assuming Capt K. Steele is not a Naval Aviator, perhaps the establishment of the doctrine of the helicopter would better be left to those who are.

MAJ WILLIAM G. VOSS
MCAF, New River, NC

... Captain Steele is right. *Naval Aviators do not want to fly helicopters.* Unfortunately, flying helicopters is not as appealing to our NAs as the fast,

high-riding jets of today; and, for this reason, they are willing to relegate the entire helicopter program to some unnamed second-class aviator possessing less professional qualifications and by implication, less guts.

Where the good Captain got his information relative to physical and mental standards, I don't know. I do know this: The present-day helicopter is harder and more fatiguing to fly than any VMA, Jet or Transport this Naval Aviator has ever flown!

Misconceptions concerning helicopters are wide-spread among the officers of Marine Aviation. The Marine Corps, and Marine Corps Aviation in particular, has been afforded a unique and wonderful opportunity to develop the helicopter as an adjunct to the Marine Air-Ground Team. An opportunity that could well be as far-reaching in this atomic age as our original amphibious concept was in the post-Gallipoli days.

At the outbreak of the Korean War, the Marine Corps was miles ahead of any other branch of any other military service in the world, in the field of helicopter tactical research and development. The machines we have today and the ones to come in the immediate future (not only to ourselves but also to our sister services) are the direct result of the far-sighted planning, hard work and guts, if you will, of those pioneers. Included and instrumental were Marine Corps aviators who had recently been earning their Navy Crosses and DFCs on strikes against our WW II enemy, flying Corsairs and Hellcats (the *appealing jets* of that day).

But—the tremendous lead of 1950 has slipped through our fingers like so many grains of sand. Today the Marine Corps helicopter program is neither better nor worse than that of any other branch of the service. Our development program is perfunctory. Our HMR and VMO squadrons spend a large percentage of their flying hours as *taxi-drivers*. Such things as ship-to-shore assault tactics, all-weather operation, joint-type tactics and many, many others are no nearer fruition than they were 5 years ago.

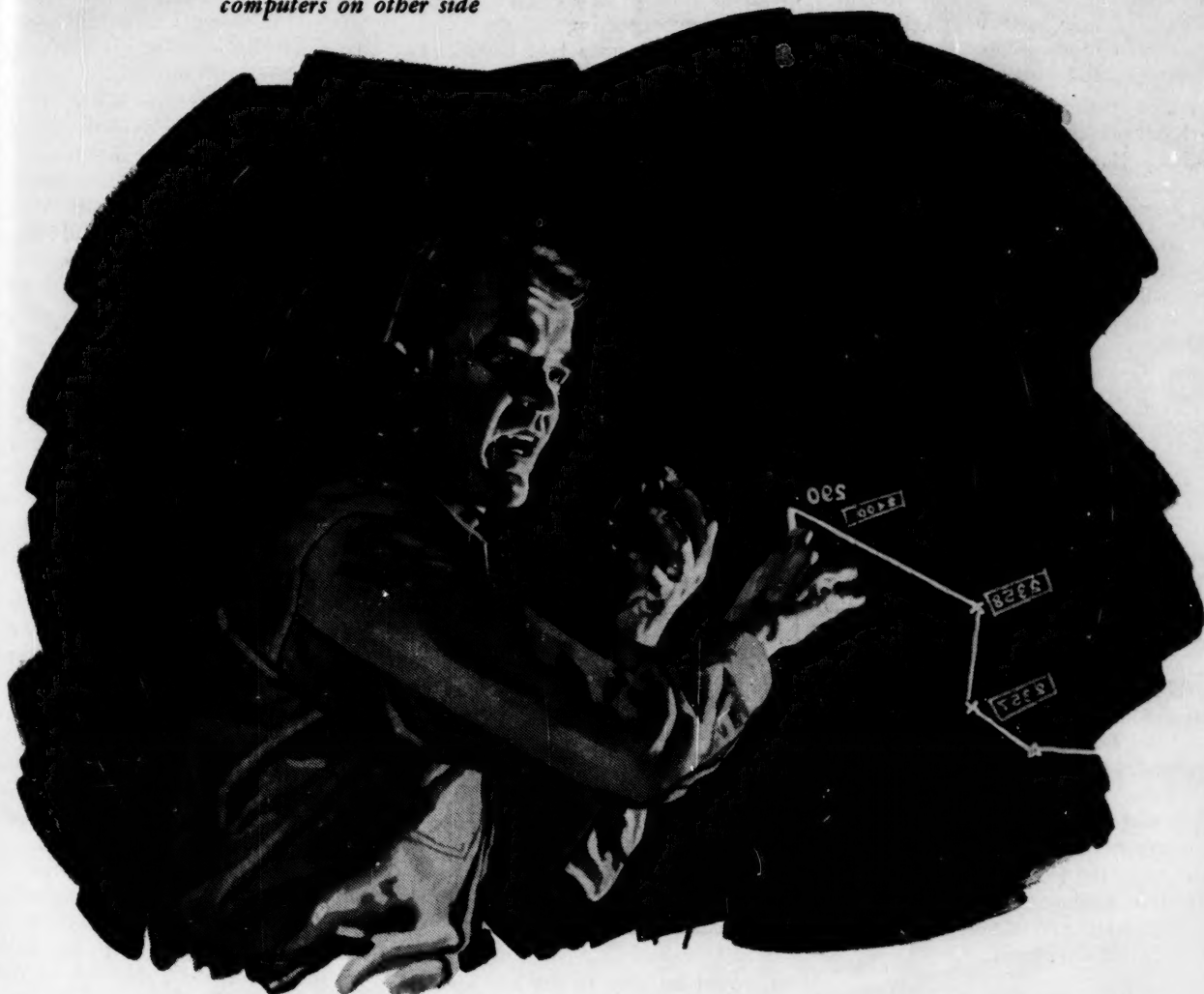
A golden opportunity is still proffered here for true conceptual development; but it will never be realized unless the Marine aviator ceases being a throttle-jockey and forgets this nonsense about relegating the helicopter to some lesser category.

It's the biggest thing in the history of Marine Corps Aviation, and you'll never get first-class results with it unless you're willing to put forth a first-class effort.

MAJOR NORMAN G. EWERS
1stMAW

... Captain Steele's letter seems to

Combat Information Center aboard U.S. aircraft carrier
—plotter charts aircraft tracks on plexiglass screen for
computers on other side



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promote a doctrine such as this: Detail a few men from each line company to draw a helicopter from supply and fly it whenever and wherever their company commander sees fit. Such a concept is absolutely unfeasible.

First, a helicopter is an airplane. Nearly all principles of flight that apply to high-performance aircraft apply to helicopters as well.

But, a helicopter has many complex eccentricities of its own, which, if not fully understood and respected by the pilot, will kill swiftly and surely. It takes more thought and planning to fly a helicopter safely than it does for the average fixed-wing aircraft.

Captain Steele thinks that Naval Aviators don't want to fly helicopters. Most of the helicopter pilots in the Marine Corps today are volunteers and the percentage is increasing.

As to Capt Steele's statement that it takes higher physical and mental standards to fly fixed-wing aircraft than it does for helicopters, I say, *Nuts*. The requirements are exactly the same for all Naval Aviators.

I think it is a fine idea to assign helicopters down to and including the company level, but it could be done only on a *for-today-and-maybe-tomorrow* basis. Why?—the old aviation headaches of supply and engineering which would be too cumbersome for the fast-moving infantry unit needed for today's concept of modern warfare.

1stLt WILLIAM B. ANDERSON
Camp Pendleton, Calif.

Organization Arguments

... In regards to Capt Roe's article *Organization for Combat Endurance*, (Oct '55) his strength figures for the present-day rifle company are incorrect. There is a total of 229 enlisted plus 7 officers in the company and 55 enlisted Marines in the machine gun platoon; also, a company has 175 rifles, plus 27 BARs. So, actually, one has 202 riflemen in a company today—not 117. One of the main purposes of eliminating the carbine, besides mechanical failure, was to make more fighting men—riflemen.

The physical endurance problem can be solved by more intensive combat training and physical fitness starting at Boot Camp. Treat them like men, cut out the pogy-bait machines, movies twice a week, public telephones in the Boot area, and every Tom, Dick, or Harry coming in as visitors.

CAPT ALBERT C. SMITH, JR.
USS Toledo (CA-133)

... I would like to say that I agree with Capt Roe that the Rifle Company as it now stands is too bulky and unwieldy to be completely effective. How-

ever, I can't agree on the size of the reduction he proposes (reducing the squad to 7 men). This might be good if we were expecting to do all our fighting in large-scale land-battles. For amphibious landings this appears to be somewhat small. Why not reduce the squad by one fire-team, leaving 9 men in the squad? We have found the fire-team to be a very effective fighting group, and I for one don't think 4 men are too many in our smallest unit of fire. This leaves the squad leader 2 complete fire-teams, which isn't too many men to control. At the same time,

National Resources Conference

Headquarters Marine Corps advises that at the present time there does not exist a requirement for Marine officers to attend any of the conferences listed in the article National Resources Conference published in the September issue of GAZETTE.

Budgetary limitations of TAD funds preclude Marine officer participation. Therefore requests to attend are not invited and applications received to date have not been approved.

he would be able to use his squad in most of the ways he is accustomed, such as building a base of fire with one team and outflanking the position to be taken with the other. This will give us a platoon of 30 men—not top-heavy, or too light to carry out most platoon missions.

The same will hold true in the machine-gun platoon, using 4 men for each gun, a section leader for each section, a platoon sergeant and 2 runners—only 30 men, enough to do the job but not too bulky to be controlled. I agree with the Captain on the size he has proposed for the rocket, headquarters and mortar sections. I think however we should allow the mortars a runner; with this addition we again have 30 men in a platoon. This will give us a company of 6 officers and 150 men. A company of this size is not too large to be controlled; yet will keep intact our 4-man fire-team and give us enough runners to insure the close co-ordination necessary in modern warfare.

A company of this size would, besides meeting the need of modern warfare for tremendous fire power, give them the ability to disperse over a large area.

Our present organization defeats the

attempt to give squad and fire team leaders a chance to really develop leadership abilities. There are too many men under the squad leader. In combat or training and even at the birthplace of leadership and discipline, the parade and drill field, control is lost. If we use the WW II type of drill the squad and fire-team leaders have no control over their men as the men are strung out in a single file behind them. When we use the 8-man squad drill the fire-team leader is able to exercise some control over his men, but the squad leader has only about half of his men in his squad, so he can't exercise any control over them. Using a platoon of 30 men, however, the fire-team leader could keep his men in rank alongside him and by using two of the squad leaders as file-closers and the other one as the left guide, he would always have his squad together either in front of him or alongside him. In this manner, he could actually exercise some control over them. The same is true for the section and squad leaders in the machine-gun platoon and the mortar, rocket and headquarters sections.

This drill could be easily adapted to the Captain's proposed company, but as I have stated, I think we should retain our 4-man fire-team and enough runners to insure communications between the CO and each of his platoons. This would in reality give us an *Organization For Combat Endurance*. This company could withstand up to 20 per cent casualties without seriously reducing its ability to maneuver and fight. We of the Marine Corps, trained and expected to make amphibious landings, must expect to take heavy losses at the onset of a battle. Therefore, we must retain a certain amount of what the Captain calls organic replacement, yet at the same time reduce the number of men initially bunched on a small beach.

TSgt JOE W. STEWART
Quantico, Va.

... Regarding *Organization for Combat Endurance*, the Marine Corps is 13 years ahead of Liddell Hart and S.L.A. Marshall. Our fire team is the tactical equivalent of Hart's *ideal* 5-man squad—and is even more compact. The squad, to Hart and others, obviously means the smallest formation which can be divided into a base of fire and maneuver element—but which cannot, without reorganization, form more than one such division. In most forces, this unit is the squad. In our Army, the automatic weapon team of the squad is the base of fire, the remainder the maneuver element. The Army squad is a single tactical unit, not divisible into further tactical units. But the Marine

ABA

Gentlemen:

Since I was a little girl (ancient history as I have a teenage grandson), I have been a constant user of telephone conveniences -- home, business and social-wise. Therefore my heretofore unexpressed appreciation I am now expressing in just, "Thank you."

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Too many of us take our blessings for granted and the telephone is one of them.

Very truly yours,
Alberta F. Barse.

195
New



MRS. ALBERTA F. BARSE

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We received a very nice letter from a woman on Long Island, N. Y., the other day and we thought you might like to share it with us.

Mrs. Barse's letter is typical of the many we receive from people who are kind enough to write

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In this light, our need is to increase the size of our formations: the fire team to 5; the platoon, including attachments, to 100-125; and to increase the number of officers available at company, which when reinforced resembles a sparse foreign battalion.

New subject: how about a tank-type external interphone on helicopters? With new 'copter uses being discovered almost daily, there must be many occasions when the infantry or artillery leader or the NCO in charge of a supply point wants to talk to the pilot while remaining outside the 'copter to direct or supervise loading.

Of course, a 'copter radio netting with ground unit walkie- and hand-talkies would be better, but this would probably require a bulky additional set in the infantry, artillery and tank bands, plus a few for units servicing all arms.

1stLt H. P. McLoughlin

3dMarDiv

Mortillery or Lesstillery?

... Lieutenant Spring's article *Mortar-Howitzer* in the September issue is interesting and thought-provoking. However, the Lieutenant has certain flaws in his theories which, as a mortar man, I feel obligated to comment on. Early in this article he states, "the lethality of one heavy mortar company of 12 pieces is more than equivalent to that of a 105mm howitzer battalion." I assume by lethality Lt Spring means the amount of explosives a unit is capable of placing on a target. It is apparent that a mortar company is more lethal than an artillery battalion because of the mortar's greater rate of fire. This high rate of fire is due to the fact that the mortar is a muzzle-loading weapon.

He next proposes to increase the range of the mortars by lengthening the tube to 7 or 8 feet, a fine idea. However, Lt Spring goes on to say a tube of this length cannot be loaded from the muzzle end, and an artillery-type breech mechanism is necessary. Herein lies the flaw in his logic for, by adding a breech to the mortar, it necessarily slows the rate of fire to that of an artillery piece. Thus, the Lieutenant destroys the very lethality he maintains is the mortar's "only purpose for existence."

Actually, a breech mechanism is not at all necessary. A 7-foot tube at 45 degrees of elevation puts the muzzle around 41½ feet off the ground—just a little bit under shoulder high when the base plate is dug in.

A muzzle-loading mortar-howitzer (I think *Mortillery* is a better term for them) retaining the best features of both would truly be a useful supplement to our family of weapons.

2dLt JAMES E. MARUM

3dMarDiv

Torpedoed?

... As a Graduate Student in the field of Naval History at Harvard University I have read with great interest and pleasure Col Hittle's informative and scholarly articles on *The Rise of Russian Seapower* in the August and September issues of the GAZETTE. In the latter edition I noted in particular a statement to the effect that—"the Russians made another contribution to naval warfare by conducting . . . the first successful torpedo attack ever made."

It would appear that some naval authorities are contrary-minded inasmuch as there is ample evidence that spar torpedoes were used successfully by both Confederate and Union Navies during The War Between the States. I am referring to Dudley W. Knox, *A History of the United States Navy*; Fletcher



DRONE 'COPTER

Typical of the advanced research and development projects currently being carried out successfully by Kaman Aircraft is this drone helicopter. The technical problems of remote control are more complex with a helicopter than with fixed-wing aircraft because of the 'copter's ability to fly in every direction at varying speeds, as well as to hover in flight. Kaman engineers solved these complicated problems by designing an entirely new electronic control system, miniature mechanical system and small automatic pilot. Kaman is proud that most of its 10 years have been devoted to the National Defense effort to keep the free world free.

KAMAN

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Pratt, *The Navy*; Michael Lewis, *The Navy of Britain*; H. W. Wilson, *Battleships in Action*; and Bernard Brodie, *Sea Power in the Machine Age*.

Quoting Mr. Brodie, "The Civil War saw also the introduction of the spar torpedo, the first torpedo prior to the automobile torpedo that was at all successful."

It is of interest to note that some seven months after the sinking of the monitor *Seife* by spar torpedo, as Col Hittle has stated in his article, Russian torpedo boats attempted another raid using for the first time in actual war automotive or fish torpedoes. Again, according to Mr. Brodie, "Five were launched on this occasion, all of which failed." This source continues that "Although the tactical successes achieved by the Russians (i.e., during the Russo-Turkish War of 1877) with mines and torpedoes were slight, the strategic consequences were considerable; the Turks, despite their overwhelming naval superiority in the Black Sea, were kept at a respectful distance from Odessa."

This letter is not designed in any way to bring criticism on Col Hittle's excellent and timely articles. The sole motive has been an attempt to create doubt as to the implication that the Russians were the first naval power to launch the first successful torpedo attack ever made. Today we are deluged with so many claims to Russian firsts I thought it might be of interest to introduce evidence that if anyone should receive credit for the invention and successful utilization of the spar torpedo it might be well to look at the record right back here in the USA.

COL ROGER WILLOCK
Cambridge, Mass.

ED: Col Hittle states that the quote in contention should've read "the first successful torpedo flotilla attack ever made."

... *The Rise of Russian Sea Power* by Col J. D. Hittle contains the statement that the *Petropovlosk*, a Russian battleship was sunk by a Japanese mine.

This is an erroneous statement. The battleship *Petropovlosk* was sunk by a Japanese torpedo, the Russian navy having the dubious honor of being the first naval force in the world to have a capital ship of the line torpedoed in naval warfare. This battleship was a new vessel and was not at that time completely finished, having been launched before being completed. The loss of men was 800.

The Russian version is that the *Petropovlosk* struck a mine, but the authentic book *Russo-Japan War 1904* by White written in 1905 contains the facts.

Marine Corps Gazette • December 1955

The superiority of the Japanese Imperial Army over Gen Kropotkin was amply proven by Gen Nogi and Kurochi in 1904 and the defeat of Adm Rozhdestvenski's Baltic Fleet by Adm Togo completed the Russian fiasco of 1904-5. Had President Theodore Roosevelt not interfered, it is quite likely that the forces of Nogi and Kurochi would have captured Moscow as well as Mukden, with the help of a platoon of Marines.

ROY A. WYKOFF, JR.
Davenport, Iowa

... In the conclusion of Col. J. D. Hittle's article *The Rise of Russian Sea Power*, the summary states "The Soviet Union has numerically surpassed England as a sea power." His conclusion would stand analysis better if he had stated that Russia now surpasses England in the number of ships in commission. In his monumental work, *The Influence of Sea Power upon History, 1660-1783*, Capt Alfred T. Mahan defined the elements of sea power. He named 6 fundamental factors which affect its development: geographical position, physical conformation, extent of territory, population, national character and governmental institutions. Of these, governmental institutions (the efficiency, intelligence and determination of a government) will be the determining factor



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in the development of sea power. From the conditions described in the article, it is clear that the Russian government has reached the same conclusion and is taking steps to correct a basic weakness in its military planning. Although the determining factor has received belated recognition in Russia the other factors have undergone no basic change.

Quantity of ships alone will not produce a sea power—it requires far more. England may not possess a superior number of ships in commission at present, but her mothball fleet and the 6 factors cited above swing the scale decidedly in her favor—quantity to Russia, quality to England and, as the history of our Corps shows, quantity does not determine victory, nor ships a sea power.

CAPT GEORGE F. TUBLEY
Jacksonville, NC

Close Combat

... Ten thousand resounding cheers for SSgt Michel W. Mok for his *Close Combat* in the October issue.

As Training NCO Instructor here in Portsmouth, Va., I have repeatedly attempted organization of classes in close combat.

Having been Kodokwan-trained and a Styers-Method advocate, I agree in general and particular with SSgt Mok—in the neglect in teaching and practicing individual methods of individual fighting with knife, stick, bayonet and unarmed man.

SGT. C. C. COFFMAN, JR.
Portsmouth, Va.

... As one trained in judo, knife-fighting, *atemi*, etc. I found SSgt Mok's article of special interest. The assertion that the average Marine knows practically nothing of handling himself in unarmed combat has been borne out to me while training officers, NCOs and enlisted personnel at Quantico and MCTC, 29 Palms.

Since we are aware of this lack of training some method of instruction must be initiated which will correct this situation at all levels. The Air Force has a training program for its SAC personnel which includes having some of its members attend the Kodokwan Judo College in Tokyo. What can the Marine Corps do to initiate a program which will be of benefit to the average Marine?

First, HQMC could authorize the formation of a group of experts who have been trained in close combat. We would probably find that there are more than enough of experienced instructors to form a training unit.

Then, assign this unit, as SSgt Mok suggests, to train various units of the

Corps. Commanders of these units, which would have been trained, would observe an increase in the physical condition of their personnel and a degree of confidence which is found only in men who realize that they are prepared to handle themselves in hand-to-hand combat.

It is my opinion that there are two places where this unit should endeavor to train Marines at the first opportunity that arises:

1. Extend the present 4-hour course in close combat at Basic School, Quantico, to a 24-hour course. After 10 more 2-hour periods of instruction, these young officers will have some of the background necessary to insure adequate supervision of the close-combat training of the men they will lead.

2. Extend the amount of training in close combat given to all men in Boot Camp. Again the instruction should be given by specialists who are from (or have been trained by) the close combat team authorized by Headquarters Marine Corps.

Another step which could lead to immediate advancement of the state of close-combat training in the Marine Corps would be the establishment of Judo Clubs at Marine bases. Besides being an excellent sport, Judo will give the participants an understanding of some basic methods of unarmed combat. Members of the MCTC Judo Club which I established a few months ago, practice unarmed combat at various intervals during breaks in their Judo workouts. Most units on this base have representatives on this club and could use these men as instructors in close combat for their parent organizations.

2dLT ERVIN C. AMSTADT
29 Palms, Calif.

Career Patterns

... Captain Greenwood's *Career Patterns and Morale*, dealing mainly with the problem confronting officers of the Marine Corps, is the one and same problem facing the NCOs. More articles of this type would do much to alleviate this situation.

TSgt IRVIN R. STONE
San Diego, Calif.

Post Stagnation

... A slow, creeping paralysis is overtaking the Marine Corps and, while it isn't an obvious one, it is one reason for the refusal of many good Marines to enlist.

This crippling disease is rapidly becoming known as *Post Stagnation*, a phrase referring to the poor individual who gets stranded on a Marine base for his entire tour of duty or one who is so unfortunate as to pull the majority of his career at one particular station.

This disease isn't seriously affecting the humble *brown-bagger*, but it is the young, fresh, hard-charging Marine.

I am in favor of extended tours for married personnel and shorter ones for the bachelor-type Marine.

I am sincere in the belief that more thought and effort in rotation of personnel must be made, regardless of expense, if we are to retain the necessary hard core of Regulars vital to our existence as the finest.

I am sure that this letter could bring many things to light—both pro and con.

I'd like to hear about it, because I'm one of the Marines who is facing such a disease.

SGT RICHARD AUGUSTINE
MCRD, PI

Too Many Ribbons

... Lieutenant J. H. Olds' letter to the Message Center in the September GAZETTE reminded me of *A Look at our Awards* in the Nov '54 issue. In that article it was suggested to avoid doubling up on ribbons for the same or similar recognition. We have too many ribbons now, a lot of them meaningless. Let's not add more.

When a man leaves the ranks to become an officer, the GCM is one of the things he gives up along with the service stripe. To have a 12 to 18-month enlisted service medal for officers would lower the prestige of the GCM—besides being similar.

There is many an officer who has more time in the Corps than it appears and no way of showing it, except for some grey hairs. Many officers have prior enlisted service and no GCM.

SSGT JACK W. JAUNAL
El Toro, Calif.

Smoker

... In a recent letter to all commanding officers, the Commandant said, "small unit events such as smokers planned and conducted by and for the unit are invaluable in developing a close connection with the organization."

The recent heavyweight championship fight provided my company with an opportunity to conduct an experimental radio smoker. The company recreation room was the location, the radio provided the action and a benevolent mess sergeant came up with some chow and coffee.

The troops thoroughly enjoyed the affairs and as a result this unit intends to set up TV smokers and the like for all athletic events broadcast or televised nationally. The company officers and staff NCOs are encouraged to stop by and watch or listen to these sporting events with the troops.

Since the radio smoker turned out so well, I thought other small unit commanders might be interested in a similar program for their units.

CAPT DAVID D. FINNE, JR.
Camp Pendleton, Calif.

The "B" and "C" of it

... In the past issue of the GAZETTE several articles have appeared concerning the use of atomic weapons. What about the tactical use of chemical war gases, smoke, and biological warfare? No articles have appeared on these subjects. How about someone digging up some dope on this? Remember that the atomic or H-bomb destroys supplies and buildings while CW and BW will not. These supplies and constructions of the enemy we could use and reduce our strain on our supply system.

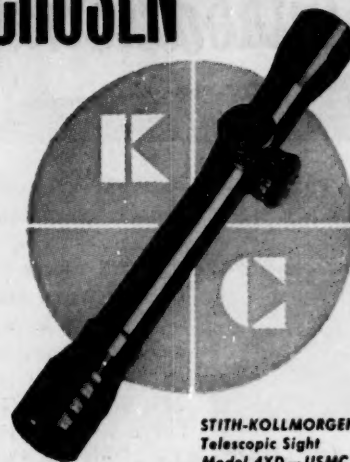
TSgt GORDON R. RENSHAW
29 Palms, Calif.

Back Issues

... I am anxious to obtain a copy of the August 1943 and the March 1944 Marine Corps GAZETTE. I will gladly pay \$3.00 each for them. Please address correspondence relative, to the undersigned c/o GAZETTE, MCS, Quantico, Va.

COL S. B. GRIFFITH, II

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MAJGEN MEGEE

✦ A MARINE AVIATOR for more than 23 years and a ground officer for over 12 years, **Maj-Gen Vernon E. Megee** should need no introduction to Marines or any GAZETTE readers. His *Tactical Air Support of Ground*

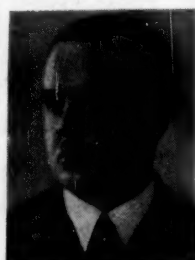
Forces, on page 12, takes the reader through the development of ground support by Marine Corps Aviation. General Megee's article is the first piece written by a Marine General Officer to grace GAZETTE's pages for some time—we'd like to have more. Now CG, FMF-Lant, Gen Megee waived all remuneration for the article.

✦ BACK IN THE DAYS WHEN GUAM was known only as a whistle-stop for slow transports on the long grind to China **Maj J. J. Reber** was NCO-in-Charge of the ham radio station there. Today, 2 wars and 15 years later he's still serving with communications. He enlisted in the Corps in 1936, served in the Far East at Guam and in China and made one of the last boats home before WWII broke out in 1941. He received a field commission in 1942 while serving overseas with the III Phib Corps and was released from active duty in 1946. Recalled to active duty in 1950, Maj Reber became OinC of the Radio Technicians' School in San Diego and then went to Korea as Communications Officer of the 11th Marines. He is now at MCS, Quantico as an Instructor (Communications), Senior School. His aid to understanding a current problem—*Communications: Our Semidilemma* is on page 42.

✦ **Capt R. G. Scribner** WROTE HIS ARTICLE *Take Ten for FEX* (page 18) because of, "The need to put small-unit training on a paying basis rather than just time spent in the field." Now an instructor at Basic School in field engineering, Capt Scribner is also a Naval Aviator. After completing his Flight Training in 1945 he flew as a torpedo pilot for a year and was then ordered to Basic School as a student with 24 other Naval Aviators. This was the last class of NAs to attend Basic School until the current special program for aviators.

From 1948 to 1949 he flew carrier-based planes in China and the US. During the Korean war he was an exchange pilot with the Air Force and flew F86s with the 51st Fighter-Interceptor-Wing. He was ordered to Quantico in 1954.

✦ BORN IN DULIBY, UKRAINE, **Mr Lew Shankowsky** served with the Ukrainian Army as an ensign in a signal unit from 1918 to 1920. During the revolt of Marshal Pilsudski in Poland (1925-26) he participated in the street-fighting as a lieutenant. From 1929 to 1939 Mr Shankowsky worked as an educator in various universities in Europe. During WWII he was an active participant and a political leader in the Ukrainian anti-Nazi, underground. He also held prominent positions with the Ukrainian Insurgent Army which openly fought the Communists after WWII. Since February 1946 he has been on this side of the "Iron Curtain." For 3 years prior to coming to the US (Dec 1946) he was assistant professor at the Graduate School for Economics in Munich, Germany. His feelings on the US were expressed in his letter, "I am just one of approximately 200,000 foreigners who arrived in this country under the provision of the Displaced Persons Act. I am a Ukrainian who was living in Trans-curtainia until 1946. I must truly confess that I am extremely happy that I managed to be displaced from the paradise of working classes to this capitalist hell." His article *Siberia* can be found on page 56.



MR SHANKOWSKY

✦ NOW AT HQMC WITH THE OFFICER detail section, **Maj R. H. Kern**, author of *The Numbers Game*, (page 24) has been in communications almost continuously since joining the Corps in 1942. He was with III Phib Corps Sig Bn during the Okinawa campaign and left the Corps in 1946 while he did post-graduate work in history at Montana. In Korea he served as S-3 of the Signal Bn, and CommO of the 7th Marines. Before being ordered to HQMC Maj Kern was instructing at COS, Quantico.

✦ **Colonel F. P. Henderson**—whose by-line is familiar to all GAZETTE readers, has just finished a tour of duty as Marine Corps Liaison Officer and Amphibious Instructor at The Artillery School, Ft. Sill. He is presently with the Advanced Research Group, MCS, and his thoughts on *Amphibious Artillery of the Future* may be found on page 28.



CAPT ANDREWS

✦ HAVING SERVED with the Royal Marines Assault Landing Squadron and the Small Operations Group, **Capt R. D. A. Andrews**, Royal Marines Forces Volunteer Reserve, has an intimate knowledge of his subject—*Special Boat Section, Royal Marines* (page 48). He has been in the US since Sept 1954 on a "King George VI Memorial Fellowship of The English Speaking Union of the United States." He is studying architecture at the University of Michigan. During the time spent at Michigan he carried out limited reserve activities with the Marine detachment of the NROTC. In June of this year he attended annual field training with the 5th Infantry Bn, USMCR, at Camp Lejeune. This was followed by 2 weeks with the Underwater Demolitions Teams, USN at Little Creek.

✦ AN OLD SERVICE CUSTOM BEING REVIVED in the Marine Corps is *Mess Night* (page 38) by **Col R. H. Williams**, Commanding Officer Marine Barracks, 8th and Eye, Washington, where the pictures accompanying the article were made. During WWII Col Williams was one of the first officers assigned to the 1st Parachute Bn. Since that time Col Williams has served in various assignments. He has been Director, 6th Marine Corps Reserve District and Commanding Officer, 3d Marines, 3d Mar Div.

✦ A FREQUENT CONTRIBUTOR TO THE pages of the GAZETTE, **Maj J. R. Johnson** offers small unit commanders a new idea for field problems, *Antiguerrilla Exercise*, on page 20. After being commissioned in December 1943, he served during WWII as Air Liaison Officer with the 5th MarDiv on Iwo Jima. Then he returned to civilian life in 1946 where he joined VMF 541 USMCR as the aviation intelligence officer. When he was ordered to active duty he filled the same billet with MAG-12. After completing



MAJ JOHNSON

Junior School in 1953 he was assigned to the 2d MarDiv as a company commander and later as intelligence officer, 1st Bn 8th Marines. Major Johnson has had 2 books published, and has contributed articles to the GAZETTE, *Leatherneck*, *Saga* and *Cavalier*. He is presently stationed at HQMC.



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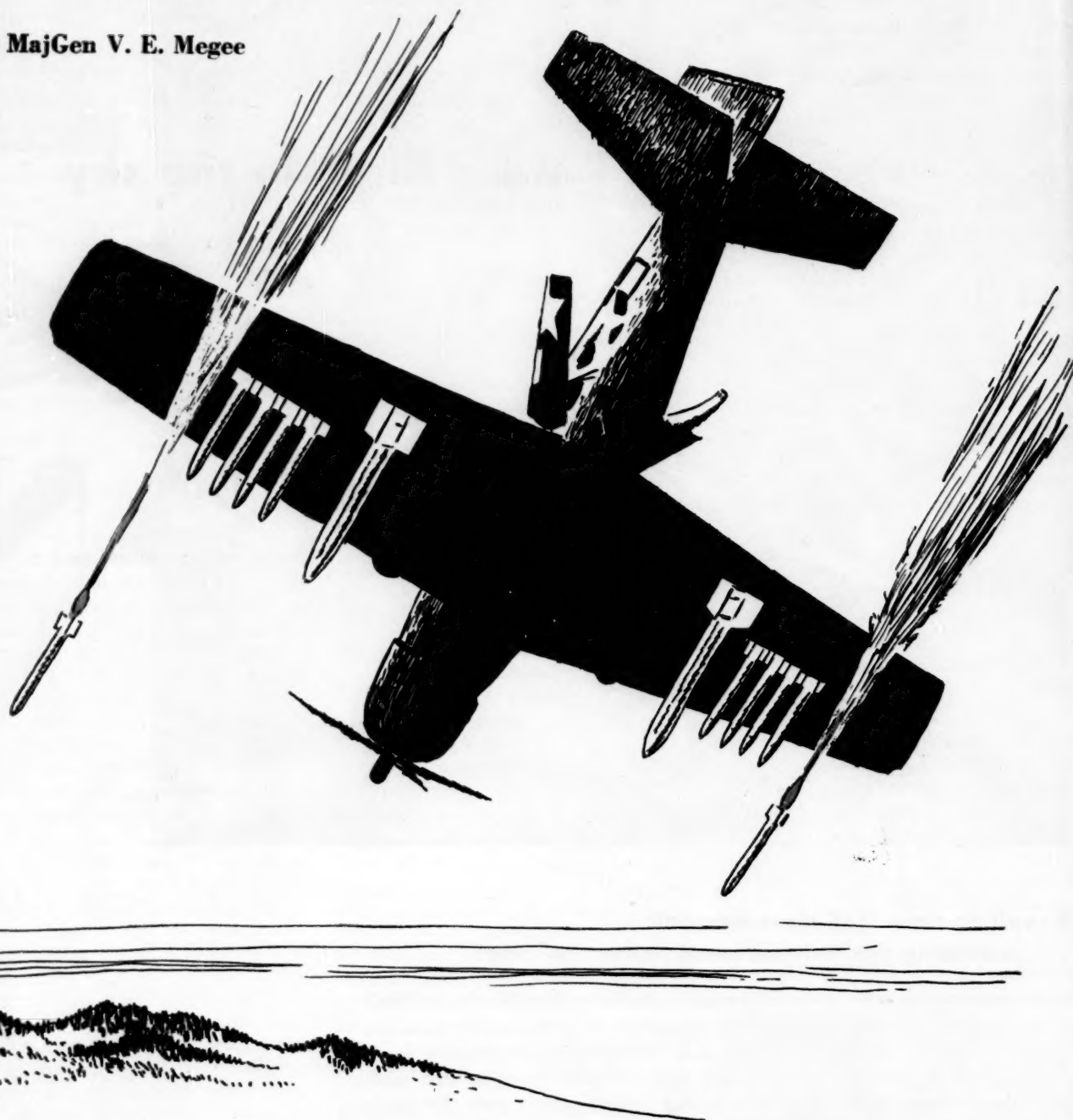
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TACTICAL AIR SUPPORT of GROUND FORCES

By MajGen V. E. Megee



Close air support involves teamwork of a very high degree — it is
seldom, if ever, achieved by a casual grouping of ground and air forces

THE IDEA OF EMPLOYING AIRPLANES as flying artillery is probably as old as the airplane; but the successful practice of the art may be considered a recent development. Although we may find isolated and incidental instances in the case histories of WWI—and even before then—where airplanes were used in direct support of ground forces, I believe the first organized close air support of ground forces—on a small scale to be sure—may possibly be attributed to the Marine air units in the so-called “Small Wars” in which we engaged in Haiti, Santo Domingo and Nicaragua during the ‘20s and early ‘30s.

Although the aircraft we then had were not too lethal—except for those who flew them—we did manage on occasion to discourage assorted groups of banditos (or patriots, depending on the viewpoint!) by spraying them with .30 caliber machine gun bullets and with whatever fragments of 17-pound bombs which might have trickled through the jungle cover.

Our air-ground communications were quite simple and dependable in those halcyon days before radio, radar and IFF. We simply flew out over the area where our small columns were operating, spotted panel signals (whenever the undershirts used as panels were reasonably clean), referred to our code cards for interpretation, zoomed down to trail our pickup fish across the message line hung on 2 poles, then flew off to do whatever odd chore a dirty, bearded and harassed column commander might have devised for a cocky young birdman who slept in a clean bed every night and habitually used ice in his whiskey. There were occasions, however, where the birdmen were considered very useful in breaking up ambushes and minor sieges, in evacuation of wounded from impossibly small fields, and for the supply—by lumbering and underpowered Fokkers and Fords—of the more essential elements of logistics, when the bull-cart convoys mired down deeper than normal.

In any event, our efforts to aid the ground troops during those early days led to the development of our current amphibious doctrine involving the very close co-ordination of air power with the fire and move-

ment of surface units. While we did evolve the doctrines and tactics of close air support prior to WWII, we went into that conflict without an adequate system of air-ground communications. We were still panel and pickup-minded. The Army-Air Force efforts in North Africa, and the Navy-Marine trials in the Solomon Islands, were neither one initially very successful in co-ordinating the efforts of air and ground units. In each theater we were, of course, plagued by very healthy enemy air opposition, and our efforts at developing any system for working with ground troops suffered somewhat from the vital necessity of first establishing air supremacy.

As WWII progressed through the Solomons to Okinawa in the Pacific; and from North Africa to Sicily to Italy and finally to France in the Atlantic; there evolved 2 distinct systems of air-ground control—2 concepts of command relationship. The Navy-Marine Corps system in the Pacific, where the campaigns were amphibious, intermittent, comparatively brief and unbelievably violent, was based on initial air support control being exercised from the flagship of the Amphibious Force Commander, with control eventually being shifted to the Landing Force Commander ashore as soon as he was able to exercise it.

Actual operational command of all air units, carrier or land-based, which were in support of the operation, was vested in the senior commander present at the point of contact (usually the Amphibious Task Force Commander). This command was habitually exercised through the Tactical Air Commander, who was present on the flagship (or in the later phase of the war at the CP ashore) of the senior commander involved. Since the Air Control Center was always located on the same flagship (or at the same CP), it follows that requests for air support coming from troops ashore could be immediately acted on and co-ordinated then and there with the fire of other supporting weapons. In practice, I must admit, this was not always the case. This close co-ordination of ground and air action was improved, beginning with Iwo Jima, when control was shifted ashore to a full-fledged Air Control

Center located at Landing Force (corps) Headquarters. The inclusion of a TACC at the Headquarters of the Landing Force Commander was SOP thereafter.

According to this SOP, the actual requests for air support were radioed in from the battalion Air Liaison Officers directly to the Control Center. The resultant missions, however, were not initially controlled from the front lines, but by a master-controller in the Air Control Center who was coached by the ALO in the forward OP.

As the war progressed, and in response to insistent demands from ground unit commanders, actual control of close support aircraft was gradually shifted to forward air controllers with the regiments and battalions, so that in the end the battalion commander could and did employ the air support made available to him in the same way as he did his supporting artillery—through the medium of a liaison officer from the supporting arm. Overriding control of all supporting aircraft was, of course, exercised by the Tactical Air Commander, who could and did shift his available air power as dictated by the over-all mission. I might add, parenthetically, that Hell hath no fury like a Marine battalion commander suddenly deprived of his air support at the moment of the jump-off. We honored their requests wherever possible, but on occasion the Kamikaze boys rated first priority.

In the European theater, where the campaigns lasted for months and covered large areas, involving huge armies and air forces, the (then) Army-Air staffs evolved a somewhat different technique of air support control. “Air support” became “air co-operation,” and the parallel channels of command extended back to the theater commander.

In the beginning there were forward air controllers in airplanes—but I doubt that this system was overly popular with the controllers in North Africa, who had to contend with Messerschmidt fighters while trying to identify ground targets. From contemporary ground unit reports, this distraction might have been reflected in the accuracy of delivery of the supporting air missiles. Be that as it may, the evo-

lution of air-ground co-operation in the European theater thereafter followed the general pattern of tactical bomb lines and pre-planned missions, with the regimental and battalion commanders unable to directly control or to immediately influence the air action taking place on their not-too-immediate front. Air requests were habitually telephoned to division through channels, then to corps, through army, to the tactical air commander. This system proved too slow for fast-moving situations, and has since been modified.

Lest I be considered overly critical, I hasten to add that there were many shining exceptions to the red-tape-bound picture just painted. Some of the air commanders, at least, were able to clip the entangling command knots and to establish proper close co-ordination with their supported troops. I refer particularly to the air support rendered Gen Patton's army on its end run around the German left flank, when tank-borne air controllers were present at the head of each armored column, and a division of fighter bombers was overhead to immediately answer signals. The results were written for the record, in the smoke of burning German tanks and in the shattered debris of hundreds of roadblocks. In fairness to the Air Force, we must also recognize that they had other extremely important tasks to do in Europe. Evidence still exists in Europe to attest that these missions were thoroughly and skillfully performed.

As for the Southwest Pacific Theater, it would appear that we had there a mixture of the 2 systems. The Navy-Marine air forces supported the Army; the Army Air Forces on occasion supported the Marines—each after his own fashion. In the Philippines a Marine dive bomber wing supported Army divisions in Luzon, using an improvised system which utilized the group operations officers as jeep-mounted forward controllers, working closely with the leading battalions. I am reliably informed that the results were eminently satisfactory!

This Babel's Tower of air-ground control systems caused the services

to make a determined postwar effort standardize air support procedures so that anybody's airplane could support anybody's foot-soldier. The author was named to head up a board for such a purpose. After months and years of tortuous travel up and down the cavernous corridors of the Pentagon, the report of the board finally emerged as the accepted doctrines of the various services. Now we can at least call things by the same names, without resort to profanity, and our 2 systems—on paper—are not too divergent, as you shall presently see.

Perhaps it might be advisable, at this point, to review the current terminology of air support procedures; and to further indicate the scope of what I intend to cover. As generally defined, tactical air support of ground forces includes air defense, interdiction of the battlefield, and the close support of front-line troops. Our field manuals usually list the functions in this order; and unfortunately this listing has sometimes been construed as setting up an inflexible priority of missions. Since third priority missions are not always seriously regarded by air operations officers, the Army and Marine ground forces have occasionally registered profanely picturesque objection to such classification of close air support. Whatever the merit—or lack of merit—in such implied priority, I shall reverse the field and discuss close air support of troops *first*. Space limitations, and personal enthusiasm for a pet subject, will prevent my going further.

As for definitions: These are the principal functional parts of an air-ground control system, according to current standardized terminology.

TAC—Tactical Air Commander: The air officer designated to exercise tactical command of all air supporting a major operation.

TACC—Tactical Air Control Center: The principal air operations installation from which all aircraft and air-warning functions of tactical air operations are controlled.

TADC—Tactical Air Direction Center: An air operations installation under the overall control of the tactical air control center, from which aircraft and aircraft-warning service functions of tactical

air operations in an area of responsibility are directed.

DASC—Direct Air Support Center: A subordinate operational component of the Marine Corps air control system, designed for control and direction of close air support and other direct air support operations. One is with each division.

TACP—Tactical Air Control Party: A control team, especially organized to direct close air support strikes from forward observation posts. Tactical air control parties operate at division, regiment and battalion level in the Marine system.

TAC(A)—Tactical Air Co-ordinator (Airborne): An airborne aviator, normally of squadron command rank, who directs strike groups onto targets selected by the forward air controllers.

FAC—Forward Air Controller: The temporarily grounded pilot who suffers with the foot soldiers up front while providing the vital communication link with the supporting aircraft. One is assigned to each TACP and at battalion, an additional controller, termed the Air Liaison Officer, is added.

With these definitions firmly in mind we can proceed to a discussion of air-ground control systems, the inevitable perusal of charts, and the mental gymnastics usually associated with a comparison of complicated diagrams. Here we'll use examples based on the way the two systems worked in Korea and as they are now practiced.

The Army-Air Force System

Request procedure: Divisions submit requests for flights to G-3 Air, at corps, who in turn relay the corps' request to JOC (Eighth Army-Fifth Air Force—Joint Operations Center). Normal requests for flights during the day go from division directly to JOC. Requests originating at battalion have at least 16 routes to JOC.

Execution procedure: Fighter strikes are controlled by TACP and by tactical Airborne Controllers (Mosquitos). Flights are dispatched to division by JOC. The division ALO at division FSCC vectors the planes to the Mosquito or the regimental TACPs. In the ROK Divisions with only one TACP, the Mos-

quitos have to control most of the strikes. In the US infantry divisions the regimental TACPs control strikes visually, as well as having Mosquitos control them. In addition, each infantry battalion has a Tactical Air Control Party (TACP) which pass target information and friendly troop locations to Mosquito via AN/PRC-10 radios.

The Navy-Marine Corps System

Request procedure: Originating with a battalion Tactical Air Control Party a request goes directly to the Direct Air Support Center which controls a pool of aircraft either on ground alert or airborne in the target area. Intermediate agencies merely monitor, to cancel requests if necessary. The control or direction center then directs the aircraft to report to the control of the TACP requesting the strike.

Execution procedure: By visual contact and radio direction, the TACP of the ground unit requesting the strike vectors the aircraft onto the target. Alternatively the control party which, while headed by an aviator, is an agency of the ground forces, may ask observation aircraft of the ground forces to designate target. In this variation, final authority remains with the responsible TACP.

So much for the control system. Whichever one we use for close support, it must satisfy these minimum criteria: it must permit the commander of a battalion to request directly of the controlling center the emergency air support he re-

quires; it must provide for having supporting aircraft over the target area within minutes — not hours or days — and it must provide a competent air controller in a forward OP where he can see the friendly front lines, the aircraft and the target.

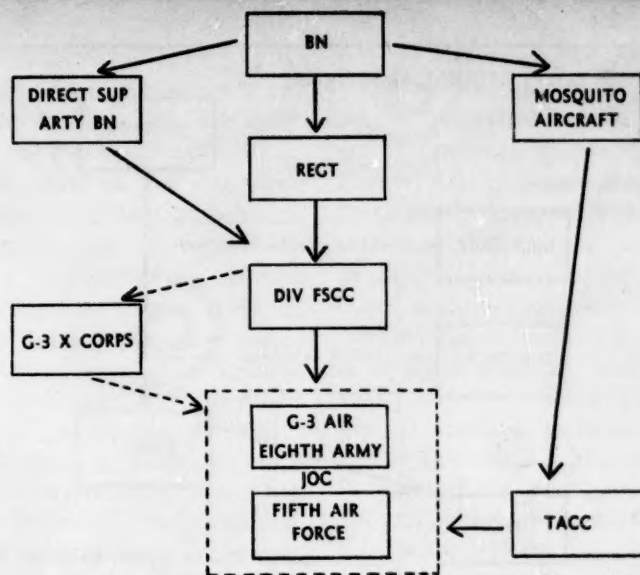
For purposes of this discussion, close air support is further defined as: that type of ground attack mission executed in such close proximity to friendly front lines as to require detailed integration with the fire and movement of infantry forces. "Close proximity" to Marines means from 50 to 500 yards out, depending on the air missiles used.

Assuming we have such a control system, and the requisite combat aircraft, here is what can be done to

aid the front-line units: in addition to the missions of tactical reconnaissance; high-performance spotting for naval gunfire and long-range artillery; close-in interdiction of the battlefield and the air defense of the area (normally expected of a Tactical Air Force in support of an army), we have in our close support squadrons a terrific amount of fire power available instantly, on call, to assist the advance of our forward ground elements.

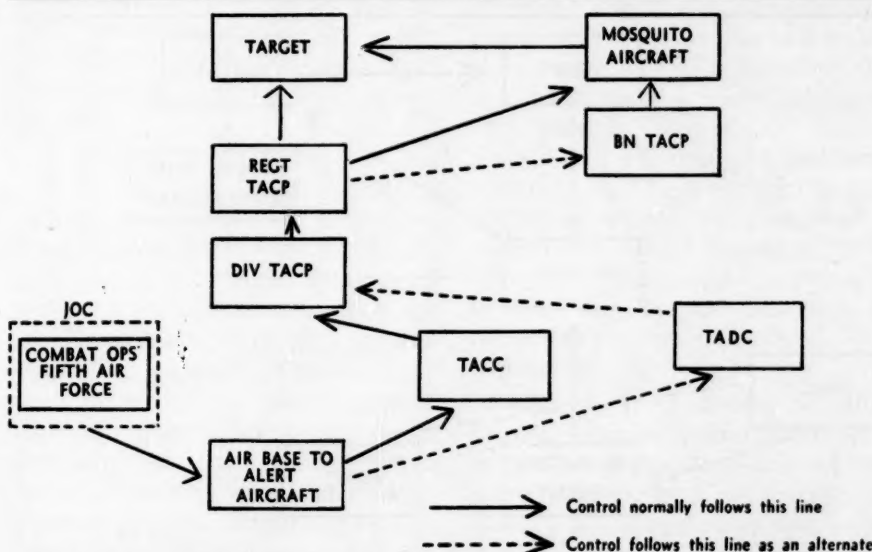
The argument has been advanced that air power should only be employed beyond the range of ground weapons. No foot-soldier who has ever seen — and felt — the explosions of heavy bombs on enemy positions in his immediate front, or who has watched the spectacular flight of aircraft rockets, or witnessed the awesome impact of napalm on an enemy tank formation, could be expected to subscribe to this discredited theory.

In close support aircraft we have a type of artillery unrestricted by availability of firing positions and uninhibited by steep reverse slopes. We have the explosive power of a siege howitzer and (with proper fusing) the penetrating power of the naval gun (without the limitation of its flat trajectory). The expert fighter-bomber pilot, properly controlled, can deliver his missile accurately where it will do the most good — immediately in front of our own infantry. He quickly gains the confidence of his supported infan-



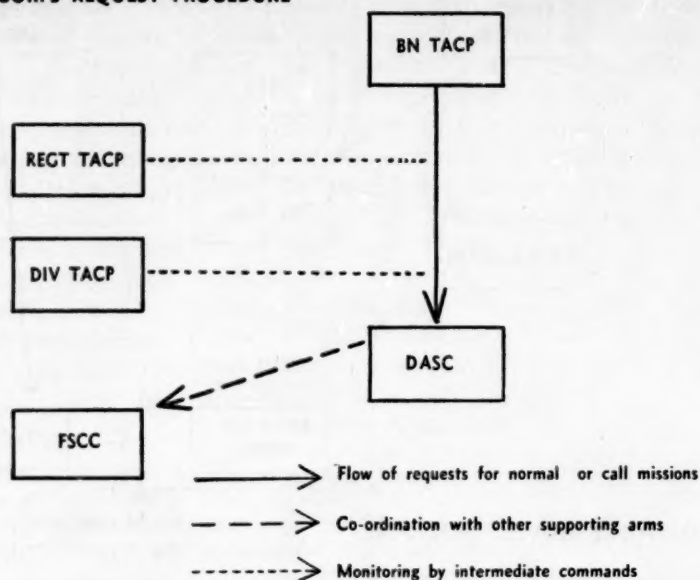
AIR FORCE REQUEST PROCEDURE

-----> Flow of requests for pre-planned mission
 —————> Flow of requests for normal or call missions



EXECUTION PROCEDURE

NAVY-MARINE CORPS REQUEST PROCEDURE



try—to the point where they will accept an occasional wild one on their own lines rather than dispense with their close air support.

This type of intimate support is possible—it was accomplished every day during the Korean campaign. Most of our readers have experienced it; others have not. It is possible, yes, but not easy to achieve. It presupposes expert and accurate pilots who are familiar with tactical formations as seen on the ground; it requires thoroughly trained and enthusiastic air controllers; and it is largely dependent upon the ground forces feeling of complete familiarity with, and confidence in, the air formations which closely support them. This optimum type of close air support involves teamwork of a very high degree; it is seldom if ever achieved by the casual grouping of ground forces, controller and air squadrons, who have not trained together long and arduously before the battle is joined.

The Korean campaign afforded us a further opportunity to test our WWII doctrines of close air support, as modified during the hectic 5-year interim of alleged peace.

Insofar as the Navy-Marine Corps system is concerned, postwar modifications were limited to minor refinements in equipment and technique. These improvements may have been offset initially by the relative inexperience of the junior participants, as compared with that of the air support veterans of the later

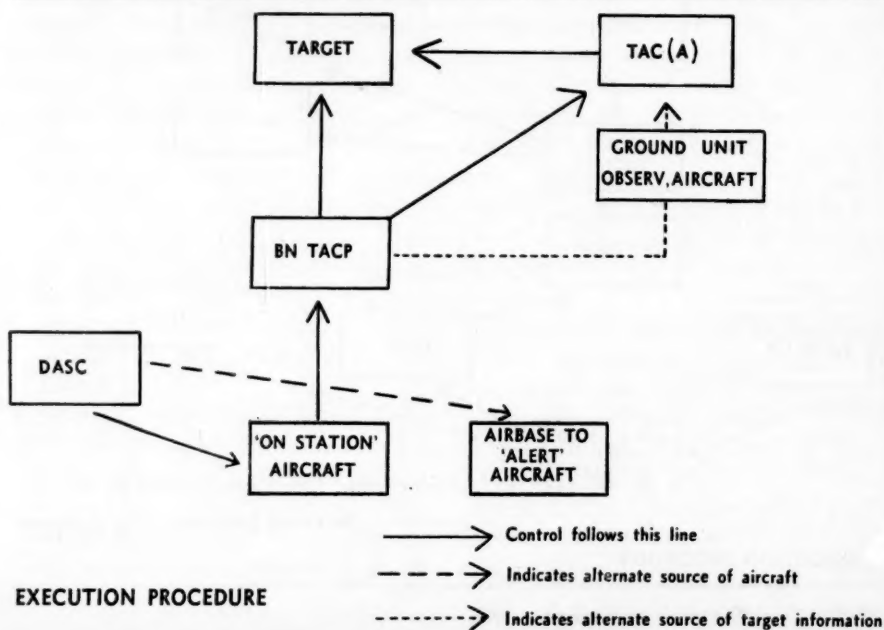
phases of WWII. Thus, it is reasonable to say that we entered Korea in 1950 by the same door that provided us exit from Okinawa in 1945.

As for the performance of the Marine air-ground team during the 1st Brigade operation in the Pusan area, during and after the 1stMar Div landing at Inchon, and during the classic withdrawal from the Chosin Reservoir area, I must refer you to the official record, and to the contemporary press dispatches. We need not elaborate further on a "chips down" performance in which all Marines may take a great deal of pride. Suffice it to say that had it not been for such teamwork, it is extremely doubtful that we could have performed as we did in Korea.

A contemporary informal conversation with the then (1950) Commander of the 1st MAW (then Maj-Gen Field Harris) which (less 5 squadrons) had been supporting the 1stMarDiv and other elements of the X Corps may be of passing interest. He assured me that his squadrons of propellor-driven fighter bombers were initially much superior to the jet-type for close air support missions, because of their ability to operate for long periods at low altitude, and the facility with which they could operate from small fields and the CVE-type carrier. He further stated that our system of air support did not require any changes, except that he would adopt—as an extension of the existing control mechanism—the Air Force idea of the airborne controller in an observation-type airplane.

I might mention in passing that we have recently provided each battalion commander with an air liaison officer in addition to his forward air controller; the idea being that these 2 jobs could be made interchangeable so that there would always be an air officer available at the battalion CP for advice, and for replacement of the FAC in the likely event of a casualty. We also, on occasion, employed airborne controllers.

I hasten to add, further, that Marine, Navy and Air Force jet aircraft later demonstrated in emphatic fashion their close-air-support capability and flexibility. This is fortunate since we are now in transition to an all-jet Air Force.



As a direct result of lessons learned in Korea, the Army-Air Force and Navy-Marine Corps control systems have become practically identical in practice. However, some difference in concept of command relationships still exist, and the parallel structure of Army-Air Force command channels will probably never be entirely acceptable to Marine field commanders. Personalities can always alter cases, however; the air commander under such a setup can accomplish much toward decentralizing control. In Korea, the commanders of the Fifth Air Force in actual daily practice decentralized control to a marked degree. Certainly the Air Force and Marine Wing units operated interchangeably and in harmony during the Korean campaigns.

When similar units from different services are operating together under the same conditions, there will inevitably be made comparisons of an invidious nature. Press correspondents are always looking for stories; disgruntled troopers—and officers—will make slighting remarks and gripe about the quality of this or that support which they did or did not get. Rivalries which are basically healthy can thus be fanned into bitter controversy. Some reports, official and otherwise, have called attention to the closely integrated operations of the Marine air-ground team in Korea, and have inferred that this standard did not always prevail elsewhere in the theater. Such comparisons are hardly fair to an Air Force which has normally overriding operational priorities which preclude the diversion to close support missions of its major resources.

It must be remembered that Marine air units are purely tactical in nature; that they have as their principal mission the support of Marine ground forces; and that they spend most of their time training with the specific division which they are designated to support. The corollary tasks of air defense and battlefield interdiction are never stressed to the detriment of the ground attack function. A high standard of competence in this specialized field is therefore to be accepted—and demanded—as a matter of course. Un-

der the same conditions of equipment, training and enthusiasm, the tactical air units of the Air Force and Navy would do equally well.

My discussion so far has been based on systems of visual control of aircraft, which are of course dependent on "contact" flying weather. Unfortunately, such conditions do not always prevail. An alert enemy will choose foul weather or darkness for his tactical and logistical movements; our adversaries in Korea proved themselves adept by thus avoiding air interdiction of the battlefield. Obviously we need all-weather squadrons and a control system independent of the visual line of sight.

For the first requirement, the Marines now have to have an increased number of all-weather squadrons in the Marine Air Wing.

For the second requirement, we now have in the mill a system of radar beacon (aircraft tracking gadgetry) which is alleged—by its able and enthusiastic sponsors—to be capable of pinpoint-bombing, regardless of the visibility conditions. If and when such a system proves dependable under field-service conditions, we will be able to dispense with "on call" missions and substitute jet-powered fighter bombers on ground alert at their airdromes many miles in rear of the lines. Close air support will then become a matter of a languid FAC pushing a button to set his guide beacon going, another to launch the ever-ready flight of jets, a third—some 10 minutes later—to automatically touch off the bomb racks and rocket rails, and a fourth to automatically—and inevitably—render his report of "mission successfully accomplished." . . . Perhaps he will need a fifth circuit to automatically jam the frantic wails of the ground force commander whose front-line positions were inadvertently plastered by the hair's breadth deviation of one radar frequency or other. Such is progress.

Going back a moment to more prosaic—if more immediately practicable considerations—one of the outstanding lessons we learned in Korea was the versatility and indispensability of the helicopter as an air support adjunct. It has thor-

oughly proven itself for tactical reconnaissance, air-spotting, wire-laying, command liaison, air-sea rescue, evacuation of wounded and a host of other chores. The Marines had already started a program of air-transport helicopters which gave promise of tactical utility in ship-to-shore movements, reinforcement of isolated outposts etc. This program is being accelerated, and we eventually expect to have 2 helicopter groups attached to each Wing for the support of each Marine division, in addition to the observation helicopters which replace part of the fixed-wing aircraft in the present VMO squadron.

Space and the scope of this article do not permit discussion of air defense of the battle area, tactical air reconnaissance, battlefield interdiction and air transport of troops and supplies. These are all vital functions which must be performed by supporting air units, sometimes to the temporary exclusion of ground-attack missions. In your assessment of force tabs for a given operation, provision must be made for sufficient air units to cover all these requirements—a rather obvious conclusion, sometimes nevertheless overlooked by our planners!

In conclusion, I would like to state for the record that as an airman I am fully cognizant of the necessity for our having an independent strategic air force; that I realize the paramount requirement of adequate air defense; but that as a Marine I have always felt that the *raison d'être* of Marine Corps Aviation, per se, is the capability to closely support the ground elements of the Fleet Marine Forces. USMC

Author's note:

This article has not taken into account the tremendous increase in destructive power which has but lately accrued to Marine Aviation units through the possession of special tactical weapons. While the means of accomplishing our mission are thus geometrically enhanced, the principles of employment have not changed. An even higher degree of air-ground co-ordination will be required, and a corresponding greater skill and reliability of function than was imposed in the era of conventional weapons. USMC

take ten for FEX

The real reason for employing a field exercise is to teach the application of a doctrine in such a manner that the individual, by actually doing, makes that doctrine his own. We "alter the individual's behavior" . . . remembering that this alteration of behavior is one of the main elements of the mission of the instructor. Probably, the most important secondary element of a field exercise is that it teaches teamwork. Here are 10 steps to take toward making that FEX work better—take "ten" and study them.

1. The Directive—Study and analyze the directive, either oral or written, to prepare a field exercise. It should contain the following: purpose of exercise, type of training to be stressed, time, place, date of exercise, units participating and facilities available. Any questions arising about the directive can be readily answered by its author.

2. Reference Material—Review all the reference material that applies to this field exercise. This includes field manuals, technical manuals, training films, service publications, similar exercises in the training officer's file and discussion of the problem with experienced officers. Check all post and station safety regulations along with any training orders.

3. Reconnaissance—Start with a map study of the area available. Select several areas which appear feasible, working backwards from the objective to the LD. On the ground reconnaissance make the final decision of the problem site, keeping in mind at all times the purpose of the exercise. Plan methods of control and safety precautions.

4. The Scenario—In writing the problem, break it down into 4 parts: general situation, initial situation, requirements and time schedule. The general situation contains background information necessary for the tactical situation that is to be developed. The initial situation should be a clear, concise and realistic 5-paragraph order. In writing the requirement do not solve the unit's problem. Merely state the actions expected, based on the preceding situation, from the unit and its leader. The time schedule is merely an estimate of the time required to conduct the exercise starting from the platoon headquarters, to the problem site, orientation, solving the requirement, critique and returning home.





5. Control Plan—Prepare a specific plan for all control personnel—umpires, aggressor forces, road guards, safety personnel and communicators. The control plan is where you put realism into the field exercise. All personnel connected with the control of the exercise must know exactly what is taking place at all times; in other words, they must have "the school solution."

6. Administrative Plan—Here is where we request and co-ordinate all the facilities and support required; ammunition, the terrain and its preparation for the exercise, communications equipment, transportation and personnel. Request these items well in advance, so substitutions can easily be made.

7. Terrain preparation—Our goal is again realism. Installing boundary markers, targets, demolitions, enemy positions, obstacles or any other aids to simulate combat conditions is a must. By proper terrain preparation, sufficient challenge is presented to stimulate and maintain a high degree of interest in the field exercise.

8. Supervision—Only if you personally check can you be sure everything is ready to go. Check the equipment, administrative personnel and any other outside agencies which will assist you in conducting the field exercise. Leave nothing to chance and take nothing for granted.

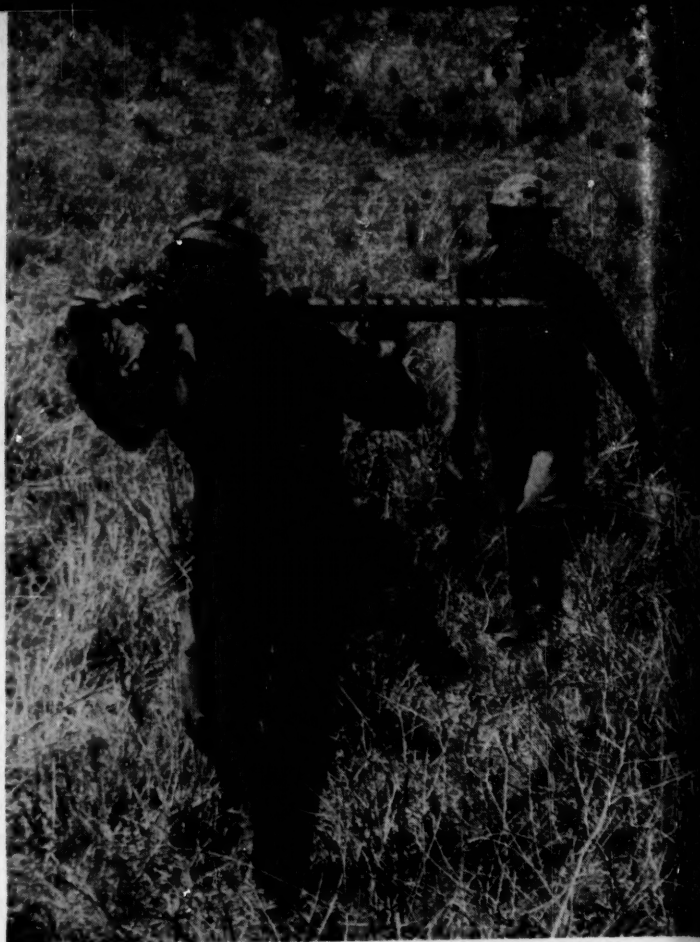
6. Rehearsal—Without a rehearsal, the planning and time consumed in preparation may easily destroy the effectiveness of your field exercise. There is absolutely no limit to the number of rehearsals conducted. Work until every man knows his job. Here we will find out if it will work and, if not, why not. Revise the time schedule as needed, and either add another situation and requirement or reduce the present one.

10. Execution—Arrive early at the problem site to catch those last-minute changes. Meet the participating unit, giving them the orientation and general situation. Issue the initial situation and requirements to the unit leader. Supervise the exercise, enforcing safety regulations and remaining tactical when at all possible. Some of the best instruction is given in the critique, immediately following the exercise, bringing to light the mistakes and also pointing up the good phases.

USMC

♣ **SMALL UNIT FIGHTING APPEALS** to the spirit of the average Marine. A recent company antiguerrilla exercise in the rain forests of Vieques' western mountains allowed riflemen to put to full use those basic combat skills learned in Boot Camp and the FMF, plus the opportunity to use more individual initiative than found in the usual training problem.

The Mt. Pirata area of Vieques provided the operating area. Pirata, nearly 1,000 feet high, swings from SE to NW for about 4 miles where it slopes into the common grassy hills of the island, which in turn give way to lagoons, mangrove swamps and coconut groves behind Punta Arenas, some 6 to 8 miles off Puerto Rico's eastern tip. The mountain, with its unusually rugged terrain, practically invited the platoon leaders and NCOs of B Co, 1st Bn, 8th Marines to "cook up" some realistic training on its slopes. It had a familiar feel to those officers



How one company ran a grueling 3-day, round-the-clock operation.

The troops were "bushed" when it was over but no one was bored with the . . .

ANTIGUERRILLA E



and men who'd hunted guerrillas on Korean ridges and tried to "patrol out" the remnants of Japanese forces on Pacific islands.

The exercise was born in the minds of the platoon and squad leaders who laid out a program to add to the annual night training — a 3-day affair which would run around the clock. An enthusiastic "go ahead" was given. The company set up necessary administrative procedures; laid down a few rules, split

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EXERCISE

By Maj J. R. Johnson

into hunters and hunted; and the exercise was on.

The 2d platoon would begin immediate guerrilla operations. The remainder of the company would attempt to neutralize it, using its platoons as antiguerrilla units—"as an effective means of carrying on an offensive action with relatively small forces" according to the principles in FM 31-20 *Operations Against Guerrilla Forces*. Missions of both forces were these: reconnaissance,

security and destruction of opposition by raids and ambushes.

Emergency signals of air panels by day and fires at night could be seen by either force on a large rock on Pirata and in front of the company camp in flatland below the mountain. Vertical adhesive strips on right sleeves identified guerrillas at night; horizontal strips distinguished the antiguerrilla contingent.

The newly-created guerrilla force moved from camp into the tropical

forest. Once out of sight it had no trouble staying out of sight. A small cache of water and "C" rations was hidden in the brush and a quick inventory taken of wild provisions (which were abundant).

Pirata filled its ravines with mangoes and breadfruit. Lemons and oranges had escaped cultivation and were ready for picking. Coconut trees in the ravines and thousands on the beaches would furnish both food and drink. Papaya and soursop added exotic fruits. A Samoan Marine showed his mates how to best utilize the tropical commissary.

The guerrilla leader now outlined his plan of action for the first night: "Infiltration of B Co's camp by a small harassing patrol. Main body to remain on mountain to ambush patrols."

The company put into effect its plan for the night: "The 2 remaining rifle platoons (reinforced with one light machine gun each) to patrol mountainsides by systematically ascending ridge noses and descending ravines, one platoon returning by 2230 for rest and moving out again at 0400 to spend the next day in guerrilla territory. The other platoon to patrol most of the night." The camp would be defended by headquarters personnel, the remaining machine guns (4) and 60mm mortars.

Excerpts from the first day's journal of principal events read: "2030: 1st and 3d platoons move (1st on 5-hour recon, 3d on 2-hour recon). First platoon sights 2 guerrillas at 2200. No firing. Patrols carry out assignments in allotted areas. 2230: 3d platoon returns to base camp for sleep and rest. 0130: 1st platoon returns to camp. 0345: 10 guerrillas infiltrate into camp; discovered and chased. No firing. 0400: 3d platoon leaves camp to take position in hiding on mountain during daylight hours."

Morning light revealed single red air panels on display on the signal rock on Pirata and at the camp, signifying all was well on both sides and that the exercise would proceed as planned. These same administrative signals fortunately flew throughout the problem, but 2 would have signalled a runner, 3 to secure the problem and 4 to send an ambulance to meet a guide below the signal rock. Company PRC-6

radios allowed frequent contact between guerrillas and company to insure that maximum training could be obtained during the exercise and meeting engagements would not be left to accident.

During the first day, one rifle platoon from the company remained on the mountainside to man OPs, patrol and attempt to catch the guerrillas moving and ambush them. "0910: 2 observers from 1st platoon left on OP during night, report sighting guerrilla patrol heading up draw toward. . ."

Riflemen and machine gunners left the company camp in pairs and threes to drop from sight and walk the bottoms of draws and reverse slopes to rendezvous at points where squad-size patrols collected themselves and began armed reconnaissance on the mountain. "1400: 12-man patrol from MGs sent on armed recon around right flank of Pirata to rear and will come over mountain via ridge running up to highest point on mountain, then back to base. Assigned mission - to find and combat guerrilla force."

"1830: 12-man patrol from MGs returns. No guerrilla contact."

The lack of action during the day indicated that the guerrilla force was utilizing daylight for rest and would probably take advantage of darkness to move undetected close to camp for an attack. Shortly after dark the platoon posted on the mountain returned and the company was again concentrated. Small patrols and listening posts covered camp approaches. A mortar OP was posted 600 yards out on a ridge to be prepared for calling fire missions on the flatlands and approaches. Draws and woodlines were covered by 60mm barrages. The mortars themselves were set up in the center of camp, ready for missions in any direction. Since this was small-unit warfare no simulated supporting arms were allowed. Emphasis was on doing the job with equipment and men physically available to an understrength unit.

"2030: 3d platoon, returning from mountain, runs into ambush set by guerrillas about 1,500 yards from base camp. Fire fight of about 3 minutes. Flank squad from 3d platoon envelops ambush and helps rout guerrillas. Contact lost. 2050:

3d platoon returns to camp with 1 POW. 2100: Brief fire fight 1,000 yards out from base camp toward mountain. 2105: Another 4 or 5 shots same vicinity."

The guerrilla force swung into operation soon after dark, harassing the company's screening patrols and the perimeter with bursts of blank firing calculated to bring the company riflemen out of their sacks to stop an expected attack.

"2305: Heavy rain. Guerrillas move close to perimeter to try to capture sentries—3 exchanges of fire. 2310: Guerrilla main body sighted (full moon) and identified 100 yards to front of mortar OP. Mortar fire called in. 2400-0600: several shots exchanged between sentries and guerrillas. 0600: 1 guerrilla taken near perimeter. 0630: 2 guerrillas sighted in exposed position 150 yards from camp. Several bursts of MG and rifle fire sent them out of area. These 2 captured by patrol and released."

At daylight heavy rain showers began sweeping in from the NE and Culebra Island to drench the camp and mountainsides and provide a ready explanation for the lush growth of giant lilies, the liana tangles and the bromeliads, or air plants, which grew in the limb forks of the Pirata rain forest.

The company took advantage of the rain to send platoon-size patrols into the mountain's concealing foliage at 0830 and 1330, hoping to catch the guerrilla force in an assembly area trying to protect themselves from the weather. The guerrillas were not to be caught napping, however. Foul weather served their movements as well as those of the hunters. They patrolled all day, attempting to locate company patrols and ambush them.

Luck allowed one company patrol to contact a guerrilla patrol and push it up a ravine where another company patrol set a quick ambush. An enthusiastic fire fight resulted.

The allotted time for the exercise was fast disappearing by dusk. A healthy amount of blank ammunition had yet to be used, and riflemen of both sides were anxious to expend it tactically. Company gunners rightfully expected to receive a determined attack sometime before

0600 when the "secure" signal would sound.

Guerrilla riflemen intended to see that they got an opportunity to shoot remaining rounds. The guerrilla plan for this last night called for small patrols out at dusk to infiltrate and harass the company camp for the entire night. One roving patrol had the mission of locating the weak points on the perimeter in time for the main attack to be launched sometime after 0300.

Guerrilla harassment was effective. Frequent rifle shots kept men inside the perimeter awake and stirring. Sleep was not possible. Then, for a short period, the harassment slackened and grumbling defenders relaxed.

0545: The guerrillas attacked the camp, striking out from a base of fire. The light machine guns in the perimeter defense opened fire, fire teams and squads shifting to alternate positions to take on the thrust.

0600: The final round sounded and the exercise was over. No man could very well say that he was not tired, but none complained about the "same old training." It had been an adventure in training.

The lessons learned were not new, but certain things received new emphasis. Operations were those normal to platoon and company offensive and defensive activity. No deviations from standard tactics were necessary. Most activity was covered quite thoroughly in the field manuals. Although no unusual problems came up, the extremely rough terrain of Mt. Pirata and its foothills exercised tactical knowledge and physical capabilities to a greater extent than average field training. But the spirit of the trooper had been much above average because he had a bigger hand in the play.

The exercise showed that night work could greatly increase the capability of the small unit; that night work must be a complement of daytime operations and not independent of them; that an overall plan of action must provide for a systematic neutralization of a guerrilla force. And it re-emphasized a principle summarized a long time ago by Confederate General N. B. Forrest, who warned, "Keep up the scare." That is: pressure, once applied, should not ease.

USMC

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THE NUMBERS GAME

The concept of the primary obligation of an officer today has become attenuated to the confines of his MOS

By Maj R. H. Kern

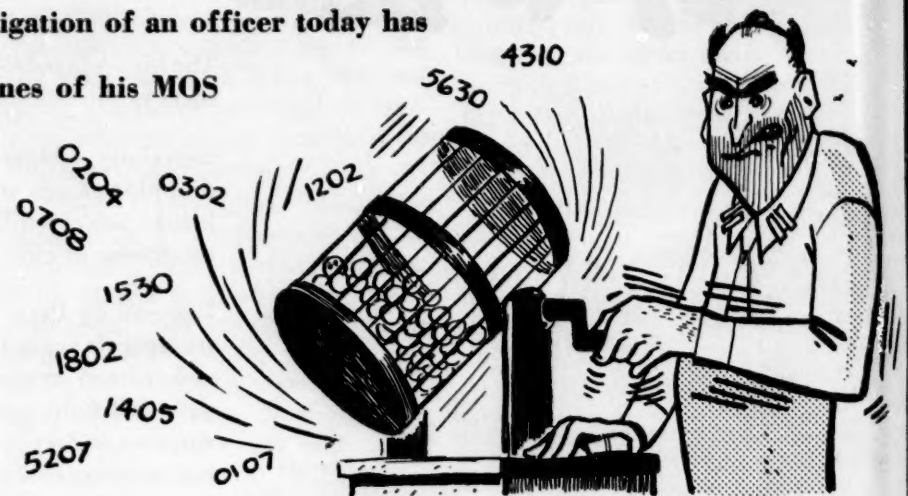
DURING SEVERAL YEARS OF WW II the Marine Corps assigned periodic quotas of newly commissioned lieutenants to a Navy Communication School at Harvard University in Cambridge, Massachusetts. Each group of Marines numbered only about 20 and they formed one platoon of a school company composed of roughly 15 platoons of Navy officers plus themselves.

A retired Marine Major living in Cambridge noticed one of these small platoons of Marines marching between classrooms in the company in which they were vastly outnumbered by Navy officers and, in an outbreak of nostalgia, he invited the entire Marine platoon to dinner at his home.

Response to the Major's invitation was nearly unanimous. About 18 Marines arrived at the Major's home and were pleasantly received and provided with an excellent dinner.

Throughout the dinner the retired officer, who was in a dress blue uniform for the occasion, questioned the young officers regarding their attitude toward the Marine Corps and their intention toward becoming career officers. He was intensely pleased to learn that several officers in the group were Regular officers and that others intended to apply for Regular commissions at a future time.

At the conclusion of the dinner the host, in a formal manner and extremely serious fashion arose and addressed the group on a subject which he described as, "of paramount importance to any officer desirous of a successful Marine Corps career."



"Lads," he began, "throughout my 28 years of commissioned service which ended in 1935, I was a completely happy man living a useful and productive life. Every tour was a pleasure for me and as I look back on those years I can realize one personal characteristic which I developed and, through the use of which, I was able to overcome many professional difficulties and personal shortcomings. I wish at this time to advise you of this characteristic and, through this advice, to put each of you on the track leading toward a career as happy as mine was."

Nearly overwhelmed by a sense of impending revelation which permeated the room each of the young officers leaned forward, intent on the speaker. He continued:

"My characteristic was simply that, through an independent spirit and a natural desire for self improvement, I was able to stay out of the clutches of the pack of specialist personnel who were then, and still are, a plague on the Regular officer. Beware of your specialists, gentlemen. Master the specialties yourself or you'll never be a commander in the sense that a military man should. Specialists will hold their skill over your head like a club. They'll use their specialization as a lever against your discipline. They'll destroy you."

Incongruous visions of mass uprisings of one Marine Corps element against another were dispelled from

the minds of the lieutenants by the Major's next and final words:

"When I first commanded my company my field music and my cook were the 2 most surly and sullen creatures in the whole Marine Corps. They felt they were outside my authority because they were specialists whose duty could not be performed by anyone else in the company. Reveille was late and the food was awful. My duty was clear. I got a bugle and a field music manual and in 2 weeks I was my own specialist and my field music was in the brig. By the end of 2 more weeks I had learned to prepare the best company mess in the regiment so I put my cook in the same cell with the music. When they came out



they thought I was God Almighty and from then on the music was punctual and the food was palatable."

Times have changed and specialization in the Marine Corps has inexorably advanced. The present-day Marine Corps would be, in the mind of the old Major, a hopeless jumble of narrow lanes, conflicting authority, weakened commanders and personal frustration. That the Marine Corps is none of these things is a credit to the intelligent and timely recognition of the inevitability of military specialization and our ability to accomplish it while still maintaining our earliest concept of an officer's — and a commander's — responsibility.

It is a tremendous accomplishment to have maintained the principle that a commander is responsible for every act of his unit even though his unit may perform technical functions to a degree and in a number which the commander could never learn personally. Staff organization and the development of the virtue of loyalty to a commander are major contributing factors to this accomplishment.

There is a continuing danger, as the Marine Corps proceeds with an organization and an officer training program geared to accommodate modern specialization, that the fundamentals of command responsibility and an officer's overall obligation may become obscured. One prominent area where specialization and its inherent danger to an officer's basic responsibility may be measured is in the application of the Military

Occupational Specialty system to the various skills possessed by Marine officers.

In our need to catalog the artilleryman and the engineer and the electronics technician we can go, and in many cases have gone, to the extent that these technical qualities are viewed as a more important part of the individual than the basic qualifications he has as an experienced commander. It appears that the more highly qualified an officer becomes in a technical field the more lightly he is regarded for his general value to the Marine Corps. The MOS manual and the earlier systems from which it developed were never intended to limit or describe the responsibility of a Regular unrestricted officer. Yet there have been hundreds of instances when an officer with an MOS in a specialist field has, solely because of his MOS, not been assigned to command duties for which he is qualified by rank and maturity. What is worse, there are as many instances where a Regular officer regards himself as exempt from certain command responsibilities because of a limitation he assumes is implicit in his MOS.

What has actually happened through an improper evaluation of an officer in terms of his MOS is that the entire concept of the primary obligation of an officer has become attenuated. Today a captain with the MOS 1202 is regarded more as an engineer than as a potential commander. This is a desolate diminution of the qualities for which the officer should actually be re-

spected. We can obtain technical skills anywhere — but leadership, which is a Marine officer's real stock in trade and which is measured only in rank — cannot be purchased on an open market.

We should not conclude from this that the MOS system should be discarded. The purpose for which it is intended is valid and valuable. In the case of a Regular unrestricted officer his only limitation is implied in his rank. His MOS should be regarded as an expansion of his capabilities rather than a reduction. Thus, a captain with the MOS 0802 should be primarily regarded as eligible for any command assignment for which his rank calls and, secondarily, he should be regarded as having an additional technical qualification as an artilleryman.

For several years the Marine Corps has maintained that there are 5 general military areas wherein special skills of Regular ground officers should be identified. These areas are infantry, artillery, engineers, tanks and communications. Each of these areas has in it a requirement for the exercise of leadership and command. Each has a tactical requirement. It is reasonable to say that an officer assigned for several years in any one of these fields would develop his qualities of leadership and his ability to command at the same rate as an officer in another of these fields. This is to say that an officer who begins his career in artillery will, at any given time in his career, be as qualified for unrestricted command assignment as his contemporaries whose careers have been in infantry



or any other of the 5 fields.

We have recently added 2 additional fields in which Regular officers may be assigned. These are anti-aircraft artillery and motor transport.

In creating additional functional fields and in our practice of assigning inappropriate additional MOSs to Regular officers, we may come to the point where we place absolute dependence on technical skill to the exclusion of personal characteristics.

An officer is desirous of knowing his personal value to the service. He privately seeks standards by which he may measure his competence in relation to his contemporaries. He cannot measure his own value in terms of leadership because leadership has no measurable factors. It is patently ridiculous for an officer to estimate his own force or initiative or loyalty. Without a means for measuring leadership, but still needing a standard by which to set his personal goal he considers his technical qualifications and, in this area, he finds an easy system. Obviously a communication officer who is a graduate electronics engineer is more qualified than an officer who is not. An officer who holds 3 MOSs in unrelated fields is vastly more qualified than another who holds only one MOS. Somewhere in this reasoning he substitutes technical qualification for value and he arrives happily at a conclusion that his value to the Marine Corps is directly and solely proportionate to his technical skill.

Of course, this reasoning is faulty and proof of its fallacy is easily established. For instance, can an officer lead men into combat better because he has 3 MOSs? Can he exhort his men with statements such as, "Forward, men. I'm a PhD!"

So it is clear that an inherent danger in the MOS system is that it tends to become an obstacle in the path of Regular career development rather than an aid to it. Officers who, by study and application, qualify themselves in a primary field, find themselves trapped in this field because of the MOS which identifies it. The system, devised as a servant to career guidance, becomes its master. Officers acquire a number of minor MOSs within a functional field and eventually, through a dependence on MOSs rather than the implicit abilities of a Regular offi-



Career guidance

cer, field commands develop "critical shortages" in skills which, when placed in their proper perspective, are presumed characteristics of any Regular officer.

To keep the MOS system in the role for which it is really intended, it is necessary from time to time to re-examine the T/O requirement of field commands and the personal capabilities of all officers. The results of the most recent of these re-examinations and re-evaluations has recently been published in Marine Corps Memorandum 109-55 which in effect amounts to a reassignment of MOSs to most Regular officers. A board of officers at Headquarters Marine Corps considered the experience and training of each Regular officer of the Marine Corps and, on the basis of this consideration and with an appreciation of the purpose of the MOS system, assigned the numbers which appeared in Marine Corps Memorandum 109-55.

In the course of the study preceding the publication of Marine Corps Memorandum 109-55 the board found hundreds of officers holding MOSs which overlapped, or explained one skill in several numbers. In other cases officers held primary basic MOSs when they were, in fact, extremely well qualified by training and experience in another field wherein they held an additional MOS or, in some cases, none at all.

The greatest area of misapplication of the MOS system to Regular officers was in the practice of assigning to them additional MOSs which identified skills which were properly a part of the qualification required for their primary MOS. For some examples, many qualified Regular infantry officers held additional MOSs as reconnaissance officers or

infantry training officers. A number of Regular engineer officers were redundantly equipped with additional MOSs as construction officers. Regular communication officers carried additional tags as wire officers or radio and wire officers.

There are 2 valid purposes for retention of extremely specialized MOSs within major occupational fields. In the first place they are an aid in describing the specialized talents of limited duty officers, temporary officers and warrant officers. Secondly, they provide a convenient descriptive means for publishing T/Os or otherwise describing the requirement of a certain billet. Thus, when we see a T/O requirement for MOS 4905 (training officer) we know it can be filled by any Regular officer, particularly an infantry officer, and that it can also be filled by an LDO, temporary officer, or WO who has the MOS.

There is still an important need for the additional MOS in the cases of Regular officers. Many military skills are so specialized that they cannot be presumed to be possessed by any Regular officer. Some of these specialist requirements are for linguists, photo interpreters, certain mechanical skills in ordnance and automotive fields, electronic engineers, lawyers, ordnance engineers and auditors. Many LDOs, temporary officers and WOs properly hold primary MOSs in these fields but, for a Regular officer they are not suitable as primary for the reason that they do not in themselves contain the full quota of command and staff experience necessary for the development of Regular officers. Yet these specialized skills are so valuable and generally so scarce that when they are available in a Regular officer they must be identified.

Periodic publication of documents such as Marine Corps Memorandum 109-54 will serve the need of keeping Regular officer MOS assignments within bounds, but a greater danger—the development of the idea that a Regular officer can and should perform duties only for which he has an MOS—remains unchecked. We should reaffirm the fundamental principle on which the personality of every Marine is based; a Marine is professionally qualified for any assignment. US MC

By Capt T. L. Curtis

MUCH HAS BEEN, AND IN ALL probability will be, written regarding the correct wearing, and in too many instances, incorrect wearing of uniform, gear and equipment. There have been, in the last 13 years, many types of uniforms approved for wear by Marines, officers and men. So many, in fact, that confusion as to what is correct reigns throughout the Corps. This confusion is also apparent in our drills, ceremonies, parades and inspections. We are not standardized. Our post, station and seagoing Marines are being governed by SOPs set up by individual commanders which, in too many instances, do not conform to directives from the Commandant.

Not only is the uniform worn improperly, but all too often slovenly. Starting from the head and working down to footgear, here are a few standardizations that would bring us back to uniformity.

1) CAPS. At present, we have 5 basic types: a) Utility; b) Barracks, service, summer and winter; c) Garrison, service, S & W; d) Helmet liner; e) Frame, dress, blue and white.

All of the above are needed, but there is no worse looking piece of headgear than a helmet liner. It is uncomfortable to wear, never fits properly and was made to wear under the steel helmet. It serves no purpose as far as keeping rain from running down the back, or in the eyes and when worn on night problems in wooded areas, creates much noise from scratching branches. It also is difficult to hear if this piece of equipment is worn properly, "so that only the lobe of the ear shows." There is a solution, the old field hat. Some people have written articles against it, but the arguments for this excellent piece of headgear far outweigh those against. It offers:

a) Protection from the sun. b) Protection from the rain. c) Excellence in appearance. d) Can be used for any type duty; with utilities, khakis, greens. e) Looks the part of Marine head dress. f) Eliminates

the use of utility cap and helmet liner.

2) SHIRTS, satisfactory. No comment.

3) TIES, satisfactory. No comment.

4) BELTS

a) Web, trouser, satisfactory.

b) Belts, cartridge, pistol. Satisfactory but, is there a good reason why we should not go back to the use of Blanco, to get this web equipment in the shape it should be in? Blanco would also keep it uniform in color, not the present dirty to bleached out, near-white.

c) Belts, fair leather for enlisted up to 1stSgt, MSgt and SgtMaj. Then for our top enlisted grade the lower portion of the Sam Browne. This too, for WO I (MarGun). For all other ranks, CWO and up, the full Sam Browne. It is not only recommended because of its military appearance, but because we are once again using swords for drills, commands and ceremonies. Also, most Officers of the Day carry their sword during their tour of duty, thus the Sam Browne will again serve its original purpose.

This piece of equipment was well covered in a recent article in the GAZETTE, and partially covered here. There is no need to state further the necessity for readopting this fine military part of a Marine officer's uniform.

5) TROUSERS, Satisfactory, except for utilities. The prescribed way of wearing utilities is tucked into the field boots, with a 2-inch blouse-over. Because of the cut of the trouser leg there is a large bulge in the laced portion of the field boot so why not cut down the width of the trouser leg cuff to about 14 inches, graduated up to the necessary width at the knee, thus giving them a better appearance, making them more uniform and comfortable.

6) COATS. There still are various types of coats or jackets being worn. The coat is satisfactory, neat and military in appearance; the

jacket, however, is about the most unmilitary piece of clothing ever adopted. Let's eliminate it once and for all! With the jacket there is too much of an opportunity for individualistic styling far from the uniform appearance we should demand.

One further step forward. Design a coat for our enlisted men; one they can be proud of. For their summer uniform, give them one which will distinguish them as Marines. The wearing of a shirt, with distinguishing ribbons and badges is not typical Marine Corps style.

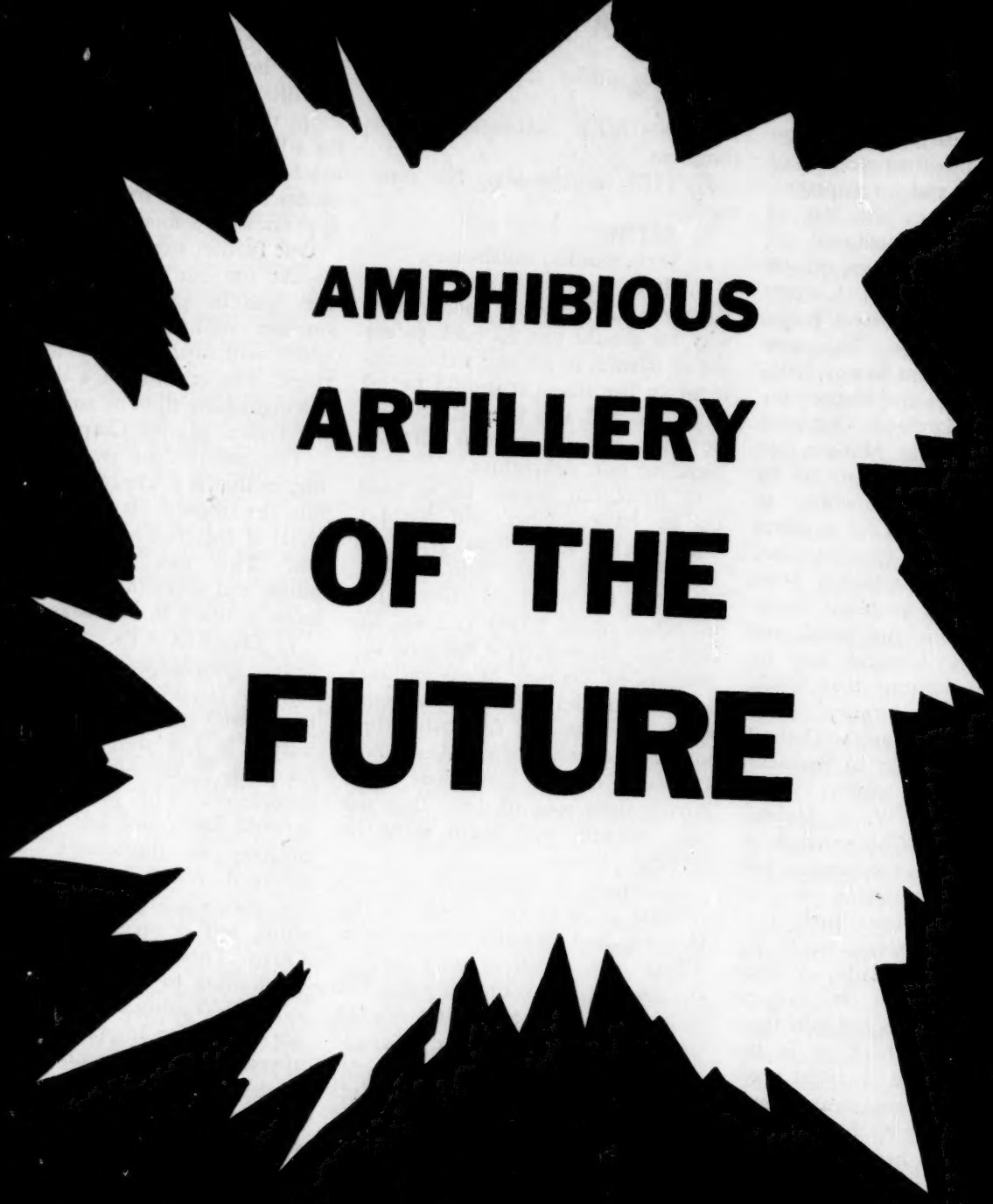
The utility coat needs redesigning, in that it is always worn tucked into the trousers. It would save material if the coat had a more fitted cut. This too, would eliminate bulges and make the utility uniform more military in appearance.

7) OVERCOATS. No doubt the Beaver overcoat was heavy and cumbersome, but it looked military. Even those who may have been overweight looked well in it, and re-adoption of the overcoat might be considered. The present raincoat, w/wool liner, and full belt, is not military in appearance. It sags, where it should fit snug, and when wet makes a Marine look like anything but a member of a proud Corps. There must be a better piece of clothing to replace this.

The foregoing thoughts and ideas are meant for improvement in the appearance of members of the Corps, and are submitted in the hope these ideas will invite comment and further recommendations.

As for our drills, parades and ceremonies, there is confusion among some as to the proper movements in the 1927 drill. (Squads east and west.) A manual is needed to insure this drill is being taught uniformly throughout the Corps. The correct manual of the sword is another subject that has caused some confusion. Now that we have re-adopted the old drill and the sword, there is a need throughout the Corps for an SOP governing these.

US MC



AMPHIBIOUS ARTILLERY OF THE FUTURE

By Col F. P. Henderson

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❖ THAT HISTORY DOES REPEAT ITSELF is trite—but true.

Some 30 years ago the Marine Corps started on a quest that many conventional military thinkers thought was foolhardy. The goal was the ability to successfully conduct an amphibious assault against determined opposition. The quest was crowned with success and provided the United States with the one military doctrine and supporting techniques which, above all others, was necessary for victory in World War II.

Now we are right back where we started. As Col R. E. Cushman brought out in his *Amphibious Warfare Tomorrow*, (GAZETTE, April '55), we must again resort to creative thinking and experiment to develop the doctrines, techniques, weapons and equipment necessary to successfully conduct amphibious warfare under radically changed conditions. He reminds us that this development must be started now if we are to have firm doctrines and proven techniques when the next crisis comes; if we are to have ready in quantity the new weapons and equipment we will need. At the present rate of technological progress, the tomorrow he predicts is not far distant.

In many ways our problem is more difficult than that which faced the Marine Corps Schools and Fleet Marine Force pioneers who wrote and tested the now historic FTP 167, *Tentative Manual for Landing Operations*. They had a stable foundation of accepted doctrines for land, sea and air warfare to build upon. Now, doctrines and techniques, proven in past combat, are in a state of upheaval. The past is dead and we are groping toward an unknown future. Their pace was leisurely. They could think, discuss and experiment without anxiously watching the clock or calendar. We must work under the lash of time. Tomorrow may find us on an atomic beachhead.

A significant fraction of the problem we must solve is the ever-present one of fire support for infantry.

How successful we will be in future beachheads will depend in large part on how well we support our infantry with both atomic and high explosive munitions. So let us examine the problems facing amphibious field artillery to determine if we can at all "see in a glass darkly" its future substance and role.

Field artillery has no hereditary claim to a place on the battlefield. It must ever re-earn its traditional place by proving that despite changes in modes of warfare, field artillery support remains essential to success in infantry combat. The doctrines, techniques, organization, weapons and equipment of field artillery must always be shaped to provide the best solution to the ultimate purpose of every shell fired—victory in combat for the infantry. If we are to start now in building our future amphibious artillery, we must visualize the atomic age battlefield, the nature of infantry combat and its fire support requirements.

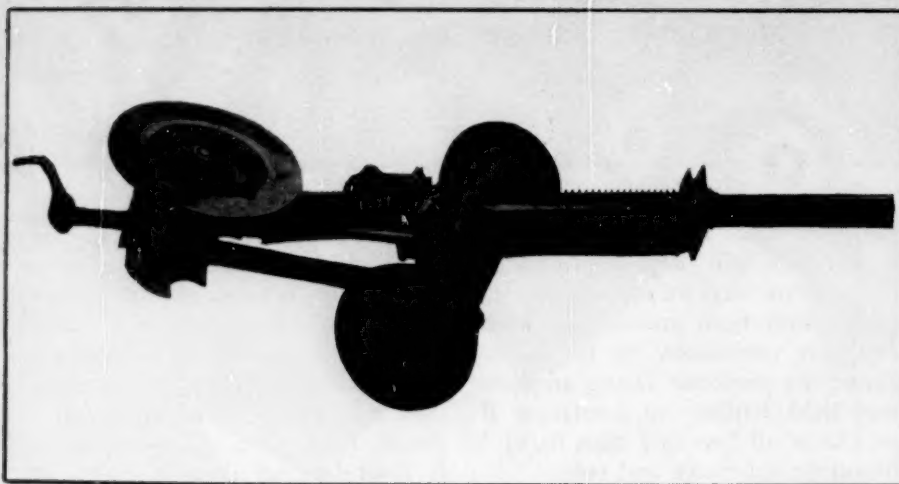
The future battlefield will be the product of atomic munitions and the vertical rising aircraft. (Either the helicopter or the convertiplane.) The age of plentiful atomic munitions has two far-reaching effects. First, we must disperse, tactically and logistically, or invite sudden, overwhelming disaster. Secondly, the awesome firepower of atomic munitions makes this dispersion acceptable by enabling us to send a battalion to do what formerly was a regiment's job.

With atomic munitions on the battlefield, the vertical riser was an inevitable development—as the Marine Corps clearly saw at an early time. It endows ground forces with tactical and logistical mobility never before equalled in warfare. It reduces the disadvantages of dispersion by annihilating distance as the foot soldier measures it. It restores surprise and tactical shock to the battlefield by rendering the enemy's rear and flanks susceptible to attack at any time. It enables us to take maximum advantage of our own use of atomic munitions.

These brash newcomers to the battlefield will drastically change the nature of combat. Offensive operations will be sudden and violent with corps and division objectives on a grander and deeper scale than ever before. The amphibious assault must be a shattering blow. It must bite off a great chunk of beachhead and digest it before the enemy can react in force. Nibbling slowly inland from the water's edge will win us no beachheads in the future. As Col Cushman says, "We must think of areas 200 miles in width and depth." Defensive operations must be equally sudden and violent counteractions—by units surviving the attacker's atomic preparatory fires. Follow-up or interim operations will produce many small scale meeting engagements between mobile forward area tactical units. Ambushes, raids and patrols will keep the battlefield in a continual foment. The shielding cloak of night will be sought to conceal movement and operations. Prompt and decisive atomic and high explosive fire support will often be the deciding factor in these operations.

At the regimental level and above, frontages will be much greater than in the past. Tactical operations will be conducted by relatively self-sufficient units of battalion or company size, operating well separated from each other. Logistic operations will likewise be decentralized and dispersed into much smaller installations. The actual battlefield will be much deeper because of the vertical riser's ability to leap over defenses and obstacles and swiftly penetrate into an enemy's rear areas. No longer will there be a *front* line, in front of which is war and in rear of which is comparative peace. The relatively unpoliced space between the tactical and logistical units of one antagonist is likely to be guerrilla infested.

Every unit on the battlefield must be, in effect, a combat unit, regardless of its primary function. "Safe" rear areas will only be those beyond the range of the enemy's vertical risers or guerrilla forces. Every



Experimentation — models feature “an expression of principle”

ground or air unit going into a future beachhead must be prepared to defend itself against strong attack. Whenever possible, division and corps logistic, administration or command installations should be located in such a manner that they strengthen and deepen the forward combat zone of the battlefield. G-3 tactical considerations will influence their location as much as G-4 logistic considerations.

The battlefield will not be static. Any unit, tactical or logistical, that sits in one place long enough for the enemy to find and fix it will probably have the atomic boom lowered on it. Thus there will be a constant, restless, and sometimes confusing, movement of units on the battlefield. (Press communiques will no doubt call it a “fluid situation.”) Problems of command and control will be greater than in the past.

Centuries of pre-atomic warfare have bred into soldiers an instinctive concern for their flanks and rear. The situation was precarious, or all was lost, when the enemy got on your flanks or in your rear. This traditional anxiety must give way to resolute unconcern. A tactical unit will no longer have flanks or a rear. All around it is space. In this space a skillful, aggressive enemy may move with relative freedom. The vertical riser enables him to land troops on a unit's flanks or rear whenever he so desires. All points of the compass are the new front.

The place of the tank on the beachhead of tomorrow is dependent on technological developments in tanks, antitank weapons and vertical risers. Our present day behe-

moths seem to have disqualified themselves for the amphibious assault by overweight. Yet as long as infantry is plentifully supplied with automatic weapons and shovels, there is a need for mobile, armored gunpower in the attack. This costly lesson from World War I should not be forgotten. A lightweight, low silhouette, agile tank with a powerful weapon may be the answer

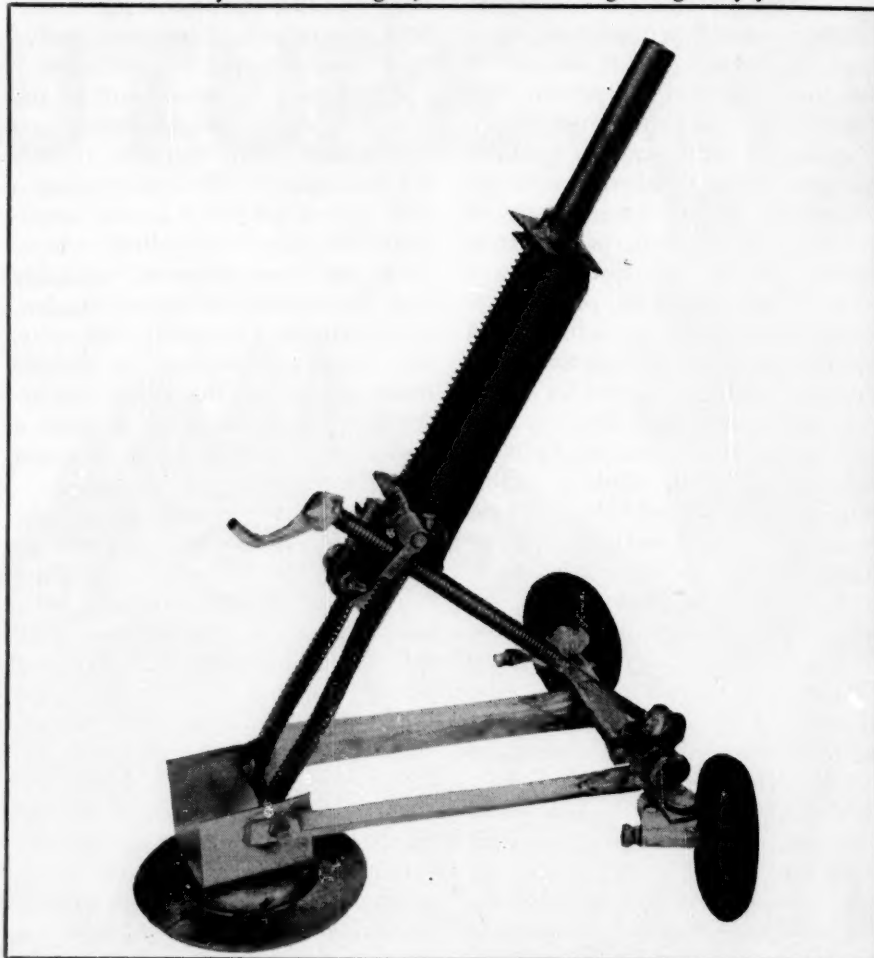
to our need. Task forces of such tanks, with infantry in light troop carriers could play an important role in an amphibious operation. Until the tank problem is resolved, infantry weapons and artillery may have to carry much of the fire support burden now borne by tanks.

Now, more than ever before in this century, success in battle at all echelons will depend upon superior intelligence, skillful maneuver, unexcelled fire support and prompt, sound command decisions. As far as unit commanders are concerned, the atomic battlefield will separate the competent and incompetent — fast.

What is field artillery's role and place on this battlefield? How will it be organized? What weapons does it need?

To begin with, we must realize that with weapons comparable to those we have now, we cannot provide artillery support on the same scale we did in WWII, even if we had the same number of tubes on the battlefield. This is inevitable as a result of stretching unit fronts

Desirable features — light, mobile and high-angle of fire





Brandt 120—a step in the right direction

and unstretchable ranges. (Infantry weapons likewise will lose much of their mutual support capability.) The experiences of the 1st Mar Div in Korea gave us a preview of this unpleasant fact. The massing of 22 battalions of artillery by the 11th Marines in a TOT on the town of Makabe during the Okinawa campaign was probably the swansong of such massed fires in amphibious operations. Yet it is certain that on tomorrow's beachhead that infantry will often need a high volume of high explosive fire support.

It is reasonably certain that the historic artillery missions of direct support and general support will remain valid. The artillery echelons to which these missions are assigned, and what their accomplishment encompasses may be considerably changed, however. A significant innovation may be the classification of artillery fire support as atomic or non-atomic, with related problems of control, delivery and co-ordination.

The atomic fires are those in which the artillery accomplishes with one gun and one round what it tried to do at Makabe with 264 guns and over a thousand rounds. For these fires the artillery will need an assortment of atomic shells (or warheads) of varying power. It will need a handy little shell that is just right for dropping on an enemy infantry, artillery or armored unit, or logistic installation that did not disperse enough. This is the shell it

can snuggle right up to the friendly infantry front lines to give them massive on-call close fire support in the attack or defense. It will also need a large, economy-size shell that can pulverize a Texas county. This is the shell to take care of dream targets, or those critical areas that the G-2 says contain "much unidentified enemy activity."

Non-atomic (high explosive) fire support is the kind the infantry has been accustomed to for generations—and will continue to need in the future. Marine infantry platoons, companies and battalions are going to get into plenty of scraps where atomic shells do not provide the right fire support answer. This is when the artilleryman must prescribe the old reliable remedy—HE.

The artillery must provide both high explosive and atomic support under conditions less advantageous than in the past. To solve new problems we must seek new solutions. The tactical deployment of artillery on the battlefield is one of these problems for which we must find an answer soon. No longer can we physically mass batteries and battalions behind an impenetrable wall of Marine infantry. There will no longer be such a continuous line that the territory in rear of it is out of bounds to the enemy. Artillery, positioned in the open spaces between areas occupied by the infantry, is exposed to attack by guerrillas or enemy Jeb Stuarts, riding

tanks or vertical risers. Present style battalion position areas are about the most immobile, easily located and vulnerable targets for mass destruction weapons in the forward area of the battlefield. To an enemy, plentifully supplied with tactical atomic munitions, they would be too tempting to pass up. Four well-placed atomic rounds and he could wipe out the artillery support of a division—something he couldn't do with thousands of HE rounds.

So to survive on the future beachhead the artillery must do 3 things. *First*, it must again seek the close protection of the infantry. This means locating itself within the infantry's all-around fighting formation. *Second*, it must deploy itself so that no grouping of artillery, or of artillery and infantry, makes a rewarding, easily located target for a small tactical atomic shell. *Third*, it must make itself less conspicuous. It must silence its bark while increasing its bite. It must reduce its observable bulk while retaining its decisive power. To meet these basic requirements we must develop artillery weapons, techniques and organizations much different from those we have today. Let us look at our weapons requirements first.

It is possible to visualize 4 new pieces that would meet our artillery weapons requirements. All of these weapons must be easily transportable in our new family of vertical risers. If they can be self propelled, so much the better. If we cannot get SPs of sufficiently small size and weight, then we should strive for the lightest possible carriage so that we can use a small prime mover. If either the SP or towed version can be a multi-barrelled weapon we will be able to reduce the number of pieces, personnel and other equipment in a battery.

First, we need a direct support piece that can deliver a high volume of effective antipersonnel fire. The mission of this piece is to inflict casualties or neutralize areas. So in its design we do not need to haggle over the extreme accuracy required for the destruction of point targets. It should have a maximum range of at least 10,000 yards—the more we can get within mandatory weight and size limits the more versatile the weapon will be.

This weapon must be small so that it is easy to dig in deep and to conceal from aerial photo interpreters and aerial observers. It should be difficult to locate by sound or flash ranging. As compared to the 105mm howitzer it should have a greater rate of fire, a more lethal shell and much better minimum range characteristics—so it can give close support to the infantry when it is right up behind them. It should have a lighter weight complete round than the 105mm howitzer to reduce the logistic problems of ammunition supply by vertical risers. Finally, it should have a crew of not over 6 cannoneers, with a 3-man crew able to handle the weapon for routine watch standing fire missions. This weapon can take any one of several forms; a much better descendant of the 75mm pack howitzer, a good artillery mortar or perhaps a marriage of the howitzer and mortar (see *Mortar-Howitzer?* in the Sept GAZETTE).

Next we need a complementary pair of general support pieces. The first of these should be a mid-range weapon that carries a big HE punch to enable it to reinforce the direct support weapon and to effect destruction of enemy field fortifications and buildings. (With atomic munitions plentiful on the battlefield, everyone is going to be dug-in, overhead-cover conscious.) It needs accuracy for the destruction of point targets. It needs a range of not less than 15,000 yards. The second general support piece we need is a long range weapon—about 40,000 yards would be desirable. It is going to be an area or "large target" weapon so it does not need the accuracy of the mid-range general support weapon. Both of these pieces must have an atomic delivery capability. Both will play an important role in our antimechanized defense system. These new pieces could take any one of several promising developmental forms: a recoilless rifle, a free rocket or a poor man's guided missile.

To complete our family of future artillery weapons we need a very long range atomic delivery piece. With a range of about 150 miles it will strike devastating blows far into enemy territory. In the future, corps and division commanders are

going to have a legitimate concern about distant enemy forces. An enemy unit 100 miles away at noon can be descending into a division's rear areas by vertical risers at 1300. From positions deep outside our own territory it is the weapon the landing force commander can use first to throw atomic counter-blows at the enemy, if he should succeed in breaching our forward positions or landing in strength within the beachhead. This weapon may take the form of a much improved version of the Corporal or the Regulus.

In its organization and missions at the various command echelons, our amphibious artillery of the coming years must be tailored to the conditions existing on the beachheads of that time. We must remember that there are no immutable principles that govern the organization, missions and duties of the various artillery echelons. So we must not hesitate to change traditional missions and cherished organizational forms if they do not provide the best answer to future requirements.

Infantry battalions, operating independently or semi-independently by past criteria, will have a continuing need for decisive HE fire support. This support must be instantly available to all elements of the battalion in greater effect than in the past if their operations are to progress with the required rapidity. Atomic fire support will take over from HE when the enemy presents suitable targets.

Infantry regiments, operating on frontages and depths and with missions formerly associated with divisions, will now require general-support-type fires, both atomic and HE. Of necessity, divisions will assume fire support responsibilities formerly discharged at the corps level. Divisions will need a greater direct support capability and must have added, and more diverse, means for delivering reinforcing and deep general-support-type fires. Corps fire support responsibilities will extend to allocating fire support means (units and ammunition) to divisions in accord with their changing needs; co-ordinating atomic fires when necessary; long range counterbattery; and to delivering deep offensive fires or massive defensive fires.

In trying to forecast the organiza-

tional forms and the duties of future artillery units, let us start with the direct support battalion. This will probably remain the most numerous type of artillery unit on the battlefield. It is the artillery unit most closely identified with infantry combat. Its organization must insure that it can quickly deliver a high volume of antipersonnel or neutralizing fire in support of dispersed infantry units.

The number of weapons that we will need in each direct support firing unit is dependent upon the rate of fire of the weapon used, the lethality of its shell and the number of firing units in the battalion. If ordnance designers could give us a lightweight automatic direct support weapon with a cyclic rate of 30-40 rounds per minute, we could have a 2-gun firing unit that could deliver as high a volume of fire as our present 6-gun 105mm howitzer battery. This would be ideal from considerations of ease of concealment, mobility and economy in manpower and supporting equipment. Such an ideal artillery piece seems to be beyond the immediate reach of designers, so let us settle for a semi-automatic piece that has a rate of fire of about 20 rounds per minute.

This piece will enable us to have a 3- or 4-gun firing unit equal in fire power to our present 6-gun battery. A 4-gun firing unit is probably the maximum size we can have and expect to survive for very long on the atomic battlefield. It is far simpler to conceal a 3- or 4-gun unit from air observers or aerial photo interpreters than a 6-gun unit. The smaller the weapon, crew, prime mover and the fewer of them and supporting personnel there are, the harder it is for the enemy to find them on the battlefield. With a 3- or 4-gun unit we can take far better advantage of natural cover and concealment than we can with our present 105 howitzer battery.

One such firing unit will not be enough for the future direct support battery. This battery must be able to engage 2 targets simultaneously. It must be able to provide continuous fire support to a fast moving infantry battalion, which means it cannot go out of action while displacing. It must be able to give an infantry battalion as much fire support as it now receives from an en-

tire direct support battalion. When massed, all batteries of the future direct support battalion must be able to deliver a much greater volume of fire in support of an infantry unit than at present. Thus we need a direct support battery with 2 firing units (platoons), each equivalent in effective firepower to our present 105 firing battery.

The direct support battery must become much more self-sufficient than at present because of the semi-independent nature of its operations. It must be able to prepare all of its own firing data, at both the battery and platoon level. It will need to provide its own survey control. The battery must furnish wire and radio communications to its forward observers, to the infantry battalion, internally, and be able to communicate with air observers. It will have to receive and handle all of its ammunition direct from dumps well back in the division or corps rear areas. It will need a greater maintenance capability.

The direct support battalion H&S battery should be organized to establish 2 small CPs, one tactical and one administrative. The tactical headquarters will be concerned primarily with the maneuver of its batteries and their fires, the planning of direct and general support fires for the infantry regiment and the co-ordination of all of the regi-

ment's supporting fires. Its fire direction function will be tactical in nature, like the artillery regiment at present. It must rely on radio communication to its batteries as a result of their frequent and rapid movement and in the absence of positive friendly control of the terrain between infantry battalions. Because of the greater self-sufficiency of the batteries, the H&S battery will be considerably smaller in size.

The tactical fire direction function of the direct support battalion should be exercised at the infantry regimental headquarters. The artillery S-2 and S-3 should work in direct personal contact with the infantry S-2 and S-3 in an operations center established by regiment. (Such a center will be feasible when we truly modernize our FDCs by delegating the technical function of preparing firing data to the batteries.) This center will provide the organizational solution to the command problem raised by the increased tempo of operations. It will insure that enemy information coming from either infantry or artillery sources is jointly evaluated and acted upon with the least delay. It enables co-ordinated plans to be quickly prepared and orders issued to subordinate infantry and artillery units. Infantry and artillery communications systems can be integrated to provide more rapid and

reliable communication for both. By closely integrating the command, S-2 and S-3 functions of the infantry regiment and the direct support artillery battalion there will be an elimination of functional duplications with a consequent saving in personnel and equipment (e.g., artillery liaison officers and supporting arms centers can be eliminated, countermortar intelligence need not be duplicated at infantry regiment and artillery battalion, message centers can be consolidated, etc.).

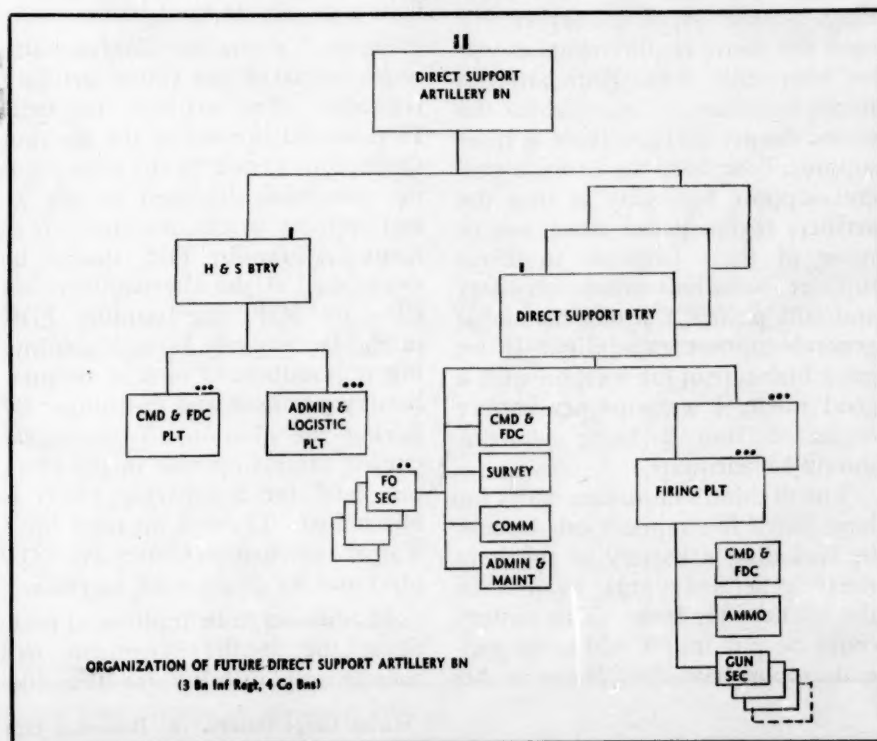
Administrative, supply or maintenance responsibilities assigned to the battalion in any particular situation should be centered in the administrative CP. Flexible organizations and procedures for such support are necessary at all echelons of the artillery regiment so that varying responsibilities may be assigned to each echelon in keeping with the tactical and logistical situation.

At the infantry-battalion/artillery-direct-support-battery level there should be a similar integration of command, intelligence and operations functions. The battery commander or fire direction officer should operate in the infantry battalion operations center with the infantry S-2 and S-3. Infantry battalion and direct support battery communications should be integrated. Infantry battalion mortar fires should be planned concurrently with artillery fires. Again there can be an elimination of personnel such as artillery liaison sections.

Figure 1 shows the major organizational components of a direct support battalion for an infantry regiment of 3 battalions with 4 companies each. In organizational concept, this battalion is kin to the field regiments of the British Commonwealth nations.

Figure 2 shows diagrammatically how a future direct support artillery battalion in support of a vertical riser landed RLT might look shortly after H-Hour. The 1st Bn, 11th Marines, reinforced by an attached general support unit, has the mission of providing direct and general support to the 5th Marines. Each battery is given the mission of direct support of an infantry battalion. All batteries can reach both objectives, Able and Baker. Any one of the batteries can temporarily take

Figure 1



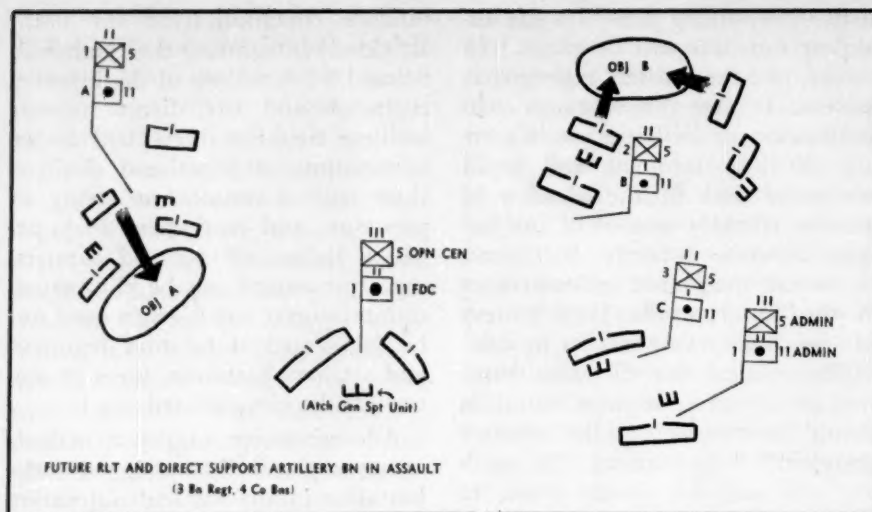


Figure 2

over the duties of the battalion FDC if it becomes a casualty or while it is displacing. The administrative CP, under the battalion exec, should be prepared to establish a new FDC if the regular one becomes a permanent casualty. When the 5th Marines has accomplished its mission, one battalion and a battery may be left to hold the objectives while the remainder of the force moves.

This organization provides a direct support artillery battalion that is not merely in support of a fighting infantry unit—it is fighting with it. Its organization, tactical employment and techniques are designed to permit the infantry-artillery team to find better fire-and-maneuver solutions to the eternal problem of taking and holding ground—and find them faster. It provides a far greater capability and flexibility in the control and delivery of close and general support fires than we now possess. The ability of the battalion to give fire support is not seriously impaired if any one installation is knocked out by enemy action.

The exact composition of division and corps general support battalions will be largely dependent upon the size, range and rate of fire of the weapons the designers give us. In general, they should follow the organizational concepts given for the direct support battalion. Firing units should be small, mobile and easy to conceal. We should not exceed 2 or 3 pieces per firing unit. Batteries will generally operate at considerable distances from their parent battalion headquarters and will need a high degree of self-

sufficiency. Batteries should be readily capable of being formed into artillery task units with other direct support or general support batteries. Battalion headquarters again will exercise only a tactical fire direction function over its batteries.

The general support elements of the artillery regiment must satisfy 3 fire support requirements. First, they must be able to reinforce direct support battalions with a high volume of murderous neutralization fires and with precision destruction fires. Second, they must provide the division commander with an organic means of delivering accurate all-weather tactical atomic fires. Third, they must be able to reach deep into enemy territory.

A 4-battery battalion of our mid-range general support weapon will meet the above requirements except for long range fires. Four batteries in the battalion are essential for the wider, deeper division front it must support. Four batteries provide general support flexibility in that the artillery regiment can attach one or more of these batteries to direct support battalions when necessary and still possess a strong divisional general support capability. If we get a high-rate-of-fire weapon with a good range, 4 weapons per battery organized into 2 firing platoons should be adequate.

The division's minimum needs for long range fire support can be met by including a battery of the long range general support weapon in the artillery regiment. This battery could be put into a mid-range general support battalion. However, be-

cause of its differences in materiel and mission, it will probably be best to have it a separate battery, operating directly under regimental control. Depending upon the weapon's range and rate of fire, this battery should have 2 or 3 firing platoons of 2 weapons each.

The division has one last fire support requirement that must be met. The necessity of all non-combat type units on the beachhead to have a "general quarters" combat capability has already been discussed. If our traditional individual basic training programs are faithfully carried out, we can expect these units to have a solid infantry proficiency. When properly armed with automatic weapons, medium mortars and antitank weapons, they will be able to give a difficult-to-detect imitation of a Marine infantry unit in combat. (Witness the 1st Service Bn at Hagaru-ri.)

But infantry alone cannot win battles, and these units may often find themselves fighting the full fury of the enemy's attack. We must provide them ever-present artillery support to defend against (or to counterattack) a combined arms attack and to reduce their vulnerability to guerrilla operations. For this purpose a fourth direct support battalion is added to the artillery regiment. It will provide direct support in depth throughout the division battle zone and insure that the non-infantry units are not called upon to fight a grossly unequal battle.

Figure 3 shows the diagrammatic organization of the future artillery regiment. The artillery regiment FDC should operate at the division Operations Center in the same manner previously discussed for the direct support battalion-infantry regiment. A standby FDC should be established at the alternate division CP. By SOP, the standby FDC might be assigned certain continuing responsibilities such as counter-battery planning and execution. By having the division air and naval gunfire officers operate in the FDC, the need for a separate FSCC is eliminated. There is no need for a Target Information Center when G-2 (div) and S-2 (regt) work together.

In addition to its traditional functions, the artillery regiment will assume responsibility for the divi-

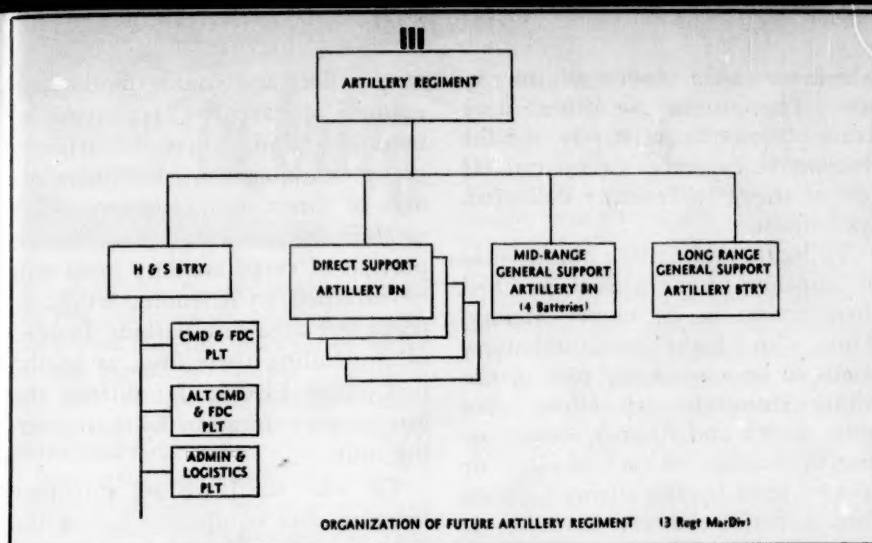


Figure 3

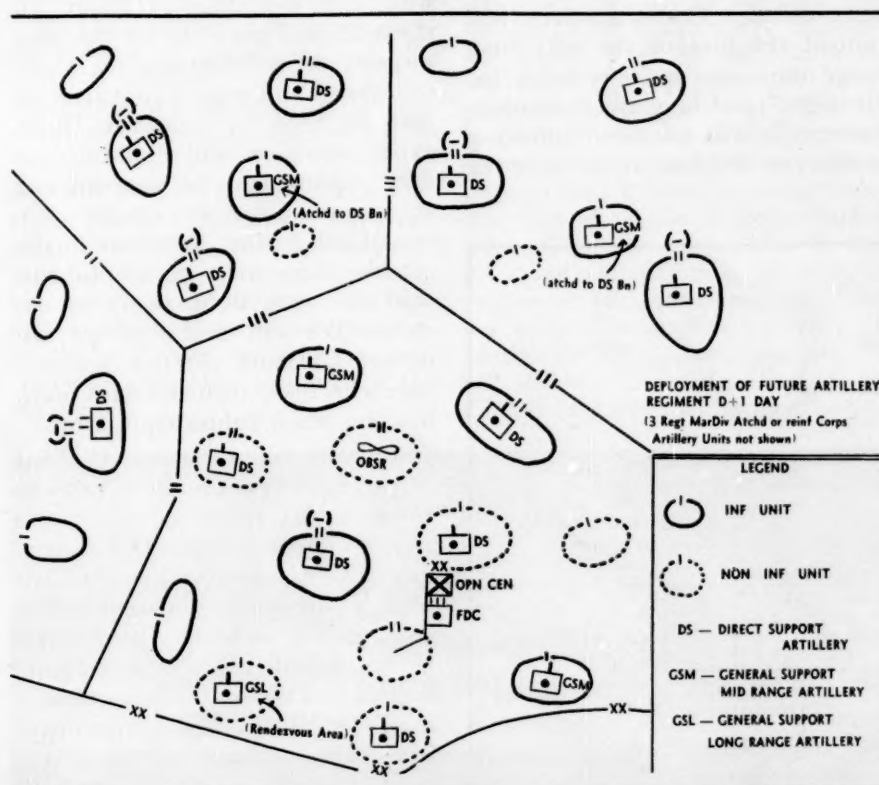
sion's atomic fire planning and fire support co-ordination, counterbattery to a depth to include the enemy's mid-range weapons, and the provision of survey control and metro data to all artillery units in the division zone. When enemy atomic lightning strikes, the critical mission of regiment will be to maneuver its units and their high explosive and atomic fires to clobber exploiting enemy troops. Radio and radio link will provide the principal means of communication to subordinate units.

The deployment of this artillery

regiment on about D+1 might look something like Figure 4. (Attached or reinforcing corps artillery units not shown.) Every infantry and non-infantry combat area, in attack or defense, should be within range of at least 2 direct support batteries and one mid-range general support battery. The long range battery should have prepared positions which its platoons can rapidly occupy to cover any combat area in the division zone or reach into enemy territory.

The artillery regiment must be able to change its organization for

Figure 4



combat rapidly, smoothly and frequently in order to deliver prompt and decisive fire support, under a greatly increased tempo of operations. T/O battalions will dissolve into battalion size task organizations of varying numbers and types of batteries. A battery groupment of 2 batteries, or a direct support battery with a mid-range general support unit attached, may make its appearance as a desirable organizational form in some tactical situations. We can expect to see an increased number of situations in which batteries and battalions are attached to the unit they are supporting. However, the continuing requirement to be able to mass both HE and atomic fires at critical times and places on the battlefield, still dictates that we endeavor to retain the highest possible degree of centralized control over batteries and battalions.

Some of the rearward batteries of the regiment (plus some corps artillery units), may not be able to reach the forward elements of the division with their fires. This appears to be a wanton violation of the modern military commandment, "Thou shalt not hold artillery in reserve." (A commandment not subscribed to by Napoleon, Lee or the Russians.) Reflection will reveal the accusation is not true. In the future amphibious assault there will be much hard fighting done well back of our most forward assault elements. The enemy's counterblows may not be aimed at the forward row of bayonets on the FBHL, but at objectives well behind it. It is probably time we gave that commandment the deep-six anyhow. Previously silent, concealed artillery might well be the future commander's principal tactical surprise for the enemy, in either the attack or defense. Full validity may again be restored to Napoleon's maxim, "When once the melee has begun, the man who is clever enough to bring up an unexpected force of artillery, without the enemy knowing it, is sure to carry the day."

Numerically strong groupings of corps (landing force) artillery will not be present on the future beachhead. Corps artillery's mission of giving artillery regiments powerful reinforcement, through many guns firing HE, will in large part be accomplished by fewer guns firing

atomic munitions. Atomic fires will likewise supplant the massed general support HE fires formerly delivered in enemy rear areas. Much of corps artillery's traditional counterbattery mission will become a responsibility of artillery regiments.

Corps artillery will contain a modest number of midrange general support battalions and long range general support batteries. These will be used to reinforce artillery regiments when necessary and to deepen the general support fires within the force beachhead. Units with the latter mission will be considered as reserve artillery, ready to quickly displace to any part of the beachhead to build up our offensive or defensive fire support capability. Corps artillery will also need one or more direct support battalions to provide artillery support to corps or air wing installations. Long range atomic fires, deep into enemy held areas, will be a major fire support requirement of the landing force. For this purpose, corps artillery will need batteries of the very long range rocket or missile units. These units will habitually be under corps artillery control.

The introduction of the atomic artillery shell or warhead to the battlefield has raised a new counterbattery problem which may become a major activity of corps artillery. In past counterbattery operations we focused all of our effort on destroying or neutralizing the enemy's guns. We paid no attention to shells "on the way." After all, they had only a finite destructive capacity

which we could absorb within reason. The atomic munition, however, possesses a relatively infinite destructive capacity. Comparatively few of them, successfully delivered, spell disaster.

To locate and destroy atomic guns or launchers after they have wreaked their havoc is an empty victory. Thus, "in flight" counterbattery seems to be a necessary part of the whole counterbattery effort. We must detect and destroy, deflect or disarm atomic shells, missiles or rockets fired by the enemy. To do this, a counterbattery battalion is included in corps artillery. Its exact organization and equipment will probably always be classified "Top Secret." But no doubt it will bear a strong resemblance to the imaginings of science fiction.

This battalion will also play a very important role in the countervertical-riser-operations of the artillery. Any form of troop or supply carrier: men, horses, trucks, or tracked vehicles, has always been an important target for field artillery. The artillery cannot abdicate from this responsibility just because a future enemy refuses to remain earthbound. It must have the equipment, techniques and will to engage the enemy while he is airborne.

Figure 5 shows the major components of a corps artillery in the next decade. Corps artillery will control the fires of the very long range units and be responsible for "in flight" and long range counterbattery. It will allocate reinforcing artillery to divisions, co-ordinate the

atomic fires and counterbattery operations of artillery regiments as necessary and, through artillery group headquarters, co-ordinate the fires of direct and general support units in the rear areas. A significant portion of corps artillery units will be attached to divisions, wings or corps rear area installations. Instead of controlling their fires, as in the past, corps FDC will influence the fire support situation by maneuvering units.

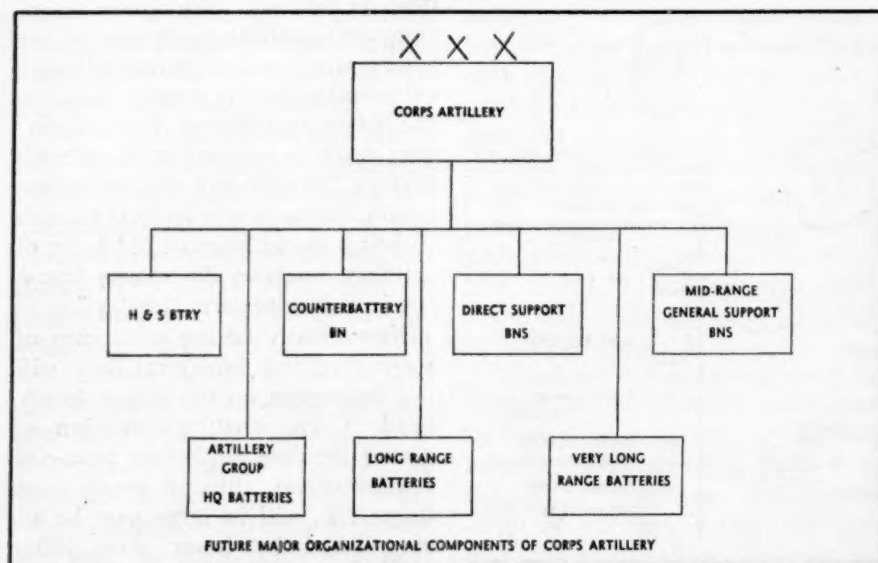
To wait until we get our new weapons and equipment before developing the doctrines and techniques for using them could be fatal. Fortunately, we do not have to wait. The creators of FTP 167 and the FMF pioneers revolutionized amphibious warfare without ever seeing a bow-ramp landing craft or LVT, a LST or modern APA, a F4U or CVE, modern infantry and artillery weapons or modern communication and engineer equipment. It was their clear thinking into the future, and experiment with what they had, that brought into being the tools for amphibious victory in WWII.

With a little imagination and ingenuity we can endow the weapons and equipment we have now with the qualities and capabilities we want them to have in the future. In the MCS and the FMF we can then proceed to develop the doctrines, techniques and organizational structure we need for tomorrow. Such experimentation will establish our firm requirements for weapons and equipment far more clearly than crystal ball gazing. When we finally get the new tools of amphibious warfare, we will be ready to use them. We will find that we can deliver far more effective fire support with fewer men and with much less and much lighter equipment.

After an endless series of Allied defeats in WWII, Winston Churchill wrote in late 1941, "Renown awaits the commander who first in this war restores artillery to its prime importance on the battlefield. . . ." If we attack the problem facing us with boldness and vision, we will find the proper place of field artillery on future amphibious battlefields without requiring the goad of defeat.

US MC

Figure 5



in brief

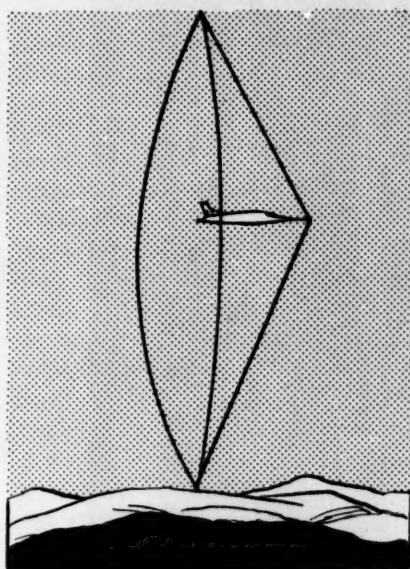
As Marines go through their training this winter in the pines of Lejeune, the brown hills of Pendleton or in the verdant growth of Vieques, they might take note of how the Russian infantry recruit is finishing up his basic training during the same period.

During the cold months at the end of each 6-month basic training cycle, the Soviet infantryman concludes his training with a 2-week field exercise. The recruit platoons are mustered, each man with his weapon, ammunition, individual equipment and overcoat. Each one is issued a ration of 2 loaves of coarse Russian black bread—nothing else. This is the sole logistic support the soldier will receive from his supply establishment for the entire period. The platoons are then marched out into the snow-covered bareness of the Russian winter where they conduct intensive tactical exercises at the small-unit level. The individual's shelter at night, his sustenance and personal comfort under these conditions are his own responsibility. However, the primary concern of the new officers who accompany him and control the exercises (who, incidentally, receive the same treatment) is that the men conduct themselves in a manner befitting the standards of Soviet infantry in campaign.

After having undergone this completing phase of his first training cycle, the recruit is considered sufficiently indoctrinated in the requirements of field service to join a Soviet infantry unit.

The world's first guided missile cruiser (below)—the newly converted USS *Boston* (CAG-1)—is the first combat ship capable of firing supersonic anti-aircraft guided missiles. This ship, with its associated radars and guidance system for *Terrier* and other missiles, represents a complete new naval weapons system.

To date most sonic booms have been created by diving airplanes. Supersonic fighters like the North American F-100 Super Sabre, however, are now being placed in service and sonic booms during level and climbing flight are possible. The perspective drawing below is of the sonic boom's shock wave which can be heard at any point where the wave's edge touches. Aircraft manufacturers and the military services are taking steps to control the explosive sound near heavily populated areas.



A small camera-carrying drone, controlled by radio, has been added to the weapons of combat aerial photography by the Army Signal Corps. Although it has a wing span of only 12 feet, the drone can fly 228 miles per hour and climb at the rate of 3,060 feet per minute. The takeoff is jet-assisted; however, it is propeller-driven by a gasoline motor while in the air. Over-all length of the drone is 12 feet. The drone can take either still or motion pictures from a range of several hundred feet to heights of more than 4 miles. One distinct advantage is that the drone will operate in all kinds of weather without risk to personnel and can perform its mission regardless of whether the US has air superiority. It will also provide aerial surveillance at less cost than other means now used.

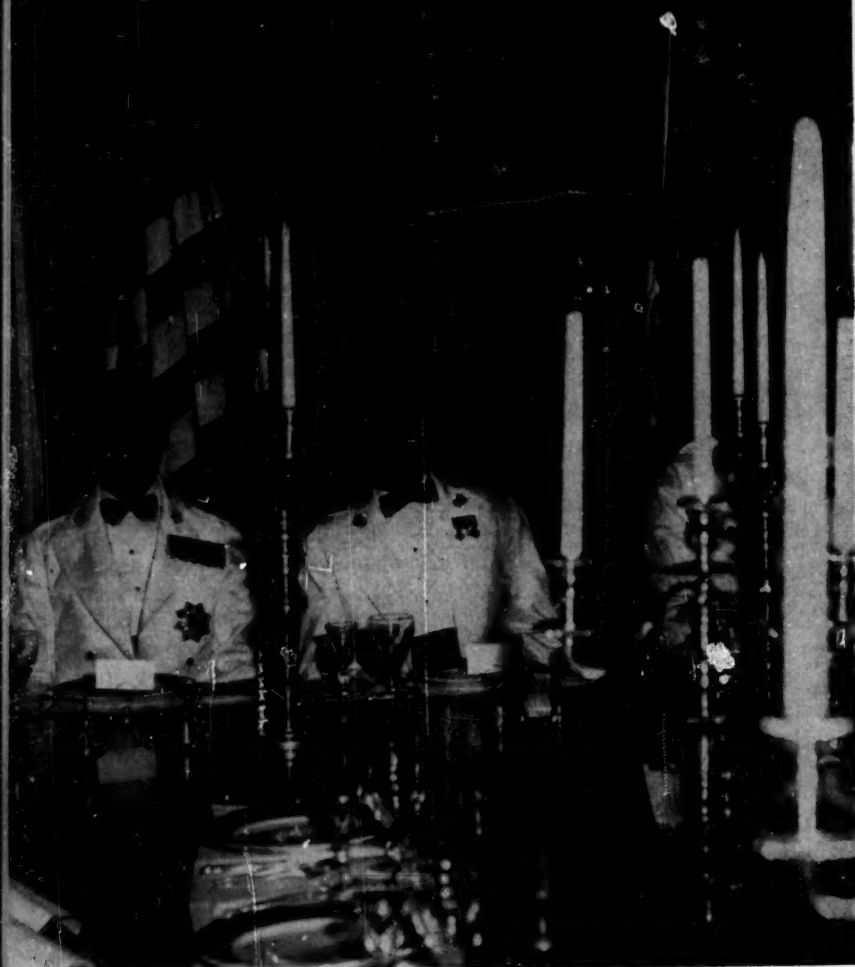
Sometime in the future the Quartermaster will be able to buy fresh meats which will keep for months without refrigeration. Progress of research on a new preservative treatment for meats is a well-kept secret, but both government and university scientists are working with the packers. One packer has already come up with a steak, sterilized by atomic rays. It needs no refrigeration but has a scorched flavor unpleasant to the palate. The packers say the flavor problem has yet to be licked (Ed: we say this with tongue in cheek) but that it isn't hopeless. Further, many meat industry leaders believe the public can be conditioned to prefer the flavor changes. One thing is sure. Non-refrigerated meat won't be here tomorrow or even the day after. But it's something to look forward to.

The USS *Suribachi* (AE21) first of a new line of ammunition ships was sponsored by Mrs. Lemuel C. Shepherd, Jr, wife of the Commandant of the Marine Corps. The new ship represents the most recent development in ships designed to conduct rapid replenishment-at-sea operations of ammunition and explosives. Elevators in the stowage holds, air conditioning, redesigned crews quarters and additional crew facilities are a few of the features incorporated into the design of the new ship.

The organization of the 3d AAA Automatic-Weapons Bn gave Camp Lejeune the only unit of its type on the east coast. The battalion is equipped with "quad50s" on halftracks and "twin 40s" on light tank chassis. Presently stationed at Stone Bay and attached to the Base, the unit will eventually become a part of Force Troops.

An airborne digital computer has been developed by North American that will act as an electronic brain in an aircraft. The computer automatically and continuously processes in-flight data and can solve problems in one second that would take an engineer 9 hours to work. It can generate continuous solutions of trigonometric and differential problems.





MESS NIGHT

By Col R. H. Williams

THE OFFICERS' MESS IS A VERY old institution both afloat and ashore, a familiar part of military and naval life in all countries. To the bachelor naval officer serving on board ship the Ward Room is home. Likewise to the bachelor Army or

Marine Officer the Mess is home. To the married officer serving away from his family, in a ship at sea or on foreign duty the mess is his temporary home, and always a second home.

Mess life in our armed forces has

declined somewhat in this country owing to a number of factors some of which are readily apparent. The regimental system which the British Army retains to this day, and which the US Army once used, tends to enlarge and elevate the mess to a position far above a mere facility, however well operated, where officers take their three meals daily in garrison.

Social life in the Navy has almost entirely shifted from the Ward Room and the Quarterdeck to the Officers' Club ashore. This is probably due to the passing of the wine mess aboard ship about 1914. In the old days many a gay dancing party was held on the quarterdeck. Nowadays such a function must be held at the Commissioned Officers' Open Mess ashore.

Few of us realize today how small the Marine Corps was at the turn of the century. There were only 200 line officers in the entire Corps. Needless to say there were few stations where it was possible to have a Marine Officers' Mess. The old Center House at Marine Barracks, Washington was one.

By the turn of the century, however, the Center House had seen its best days and was soon to be razed. This spacious old 3-story brick structure was over a hundred years old when it was torn down. There had been no organized Mess there during its last years.

In the last century, Marine Barracks at Washington was, practically speaking, the Marine Corps. Not only was it the home of the Commandant, but also of Headquarters Marine Corps. It performed the recruit training functions of Parris Island as well as the educational functions of Marine Corps Schools, Quantico. Ships Detachments were formed at the Barracks and marched to the Navy Yard (now the Naval Gun Factory) to embark on Naval vessels.

It is doubtful if Officers' Messes of any size existed in the Marine Corps of the 19th Century except at the Old Center House, and when provisional battalions were formed for

some expedition or active service in war time. However, in those days a much greater portion of the Marine Corps was seagoing. We can safely assume therefore that all of the officers of the Corps during many years of their careers regarded the Ward Room of a naval vessel as home.

The Center House must have seen some gay evenings in the old days. *The Evening Star* of Washington, DC, ran a full page of photographs of the Barracks on 16 February 1908 which included one of the old Center House. (By then torn down.) Underneath the picture reference is made, a little lyrically perhaps, to the social life which the old structure had formerly seen. "Tales are told of nights of revelry, when the wine flowed and souls of great men, freed from the cares of state, allowed their wit and spirit to soar unhampered while gracing the Officers' Mess beneath the beams of the old house. The rafters which once rang with the laugh of Presidents now lie in grim disorder."

Since it has been both a necessity and a natural custom for officers to take their meals together from the

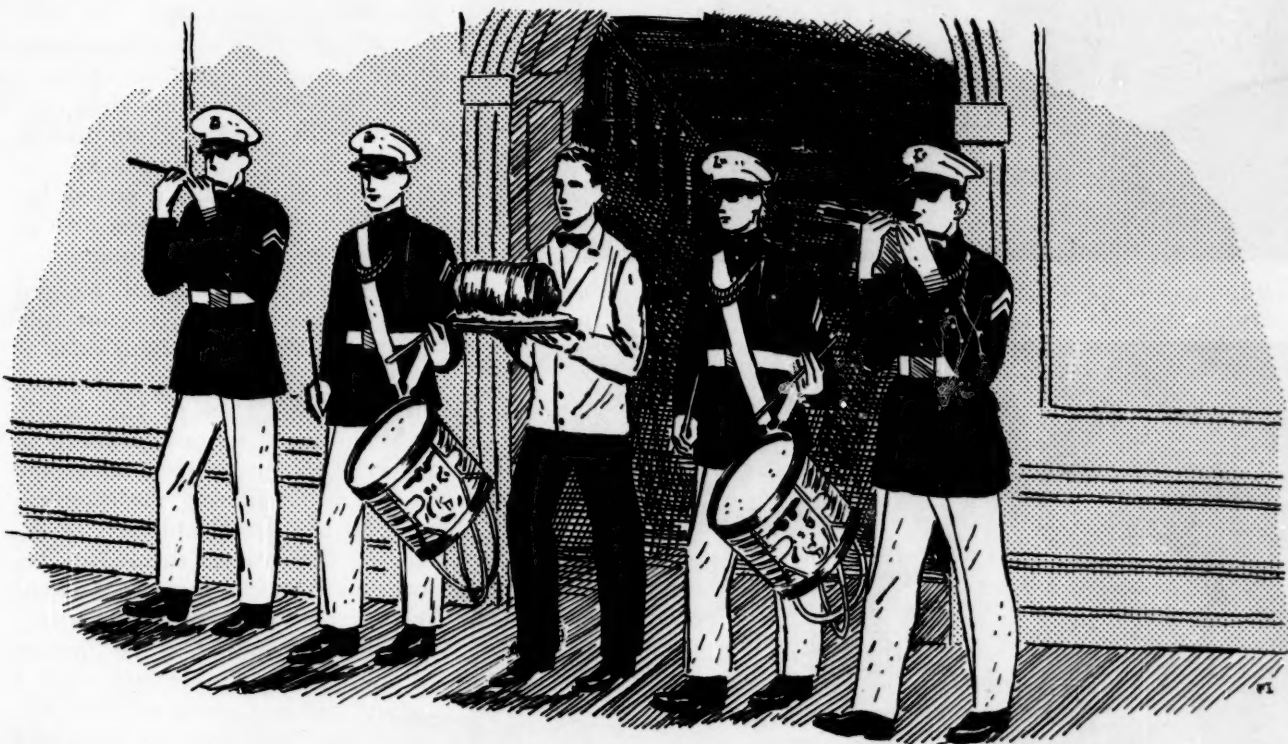
earliest times, the properly run Mess combines the atmosphere of both home and club. Men sometimes tend to omit some of the niceties when separated from the civilizing influence of the company of women. The officers' mess, perhaps unconsciously, strives to counteract this tendency. There are rules and customs that vary somewhat in different Messes and in different situations. But they have as their aim the preservation of an acceptable standard of behavior in off-duty hours among officers and gentlemen, while providing the utmost compatible within the means available, in enjoyment of the pleasures of the table and leisure hours.

The Commissioned Officers' Open Mess, common to all Posts and Stations except the very smallest, is really an officers' club. It provides restaurant, bar and recreational facilities for all officers and their families on the station. It has its place in our existence, indeed a very large place, but this is not the type of Mess to which I refer. I am writing about the closed Mess, preferably that of an organization such as

a battalion. It seldom exists nowadays at unit level except when FMF organizations are sent to foreign lands, and dependents are not permitted to accompany them. We do have a number of closed Messes, however, and it is my opinion that we have seldom fully exploited their possibilities in providing good food and service for the bachelor officer.

Occasions arise when such a Mess desires to make a special occasion of the evening meal; to dine formally in observance of an anniversary, to honor a visiting general officer, or simply to ask a few friends to join them in sitting down to good food and drink with singing and fun to follow. During the last two years, the 3d Marines in Japan, Marine Barracks, Washington, and the Basic School in Quantico, to the writer's knowledge, have revived what is known as Mess Night. It is not necessary for a unit such as a battalion to have a regularly organized closed Mess in order to hold a Mess Night. The facilities of the Commissioned Officers' Open Mess can be used.

Mess Night occurs not oftener than once per month, only as fre-

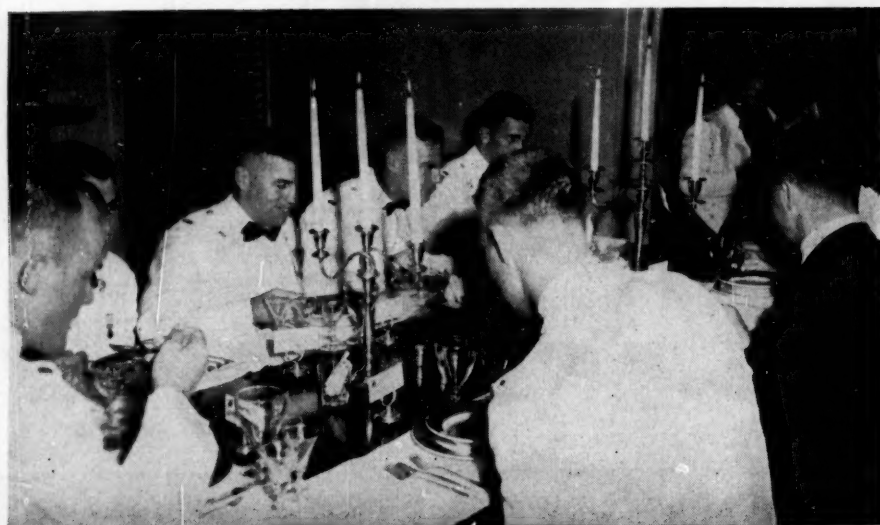




To honor a commandant, distinguished guest . . .



. . . or a visiting foreign officer



Junior end of the table — high-spirited, noisy

quently as the individual Mess desires and opportunity serves. Wives do not attend. This may cause some irritation on the distaff side, but must cheerfully be accepted as one of the many hardships which a soldier's wife must bear.

The presence of a number of male guests, however, adds greatly to the occasion. In fact, in British Messes it is called Guest Night.

In the late summer or early fall each year Center House Mess is honored by the presence of the Commandant at a Mess Night. The uniform is Mess Dress, or black tie for civilian guests. At 1930 the officers assemble in the anteroom for cocktails and to meet the Commandant and other guests. At 2000 a drummer and a fifer, smartly turned out in 'Blues,' sound *The Roast Beef of Old England* announcing dinner. All proceed to their places in the dining room, remain standing behind their chairs until a short Grace is pronounced, after which all are seated and the first course is served. Officers are seated according to rank, the Commanding Officer or another officer who is designated to act as President of the Mess is at the head of the table, the junior lieutenant at the other end. The next to his left etc. The ranking guest, at the Commanding Officer's right, is served first. The serving then continues counterclockwise, not according to rank. Simultaneously the other side of the table is served, beginning with the officer seated to the right of the junior lieutenant.

The long table is not covered with a cloth. Instead, narrow runners are placed along both sides of it to lay the table service. This permits the soft glow of the candle light and the silver candelabra to be reflected on the polished mahogany as well as facilitating the complete removal of all the table service, including the runners themselves, before the port is passed. Two or three table wines may accompany the meal, depending on the number of courses. The dinner ends with a savory, rather than a sweet desert, since the latter rather spoils the taste of port.

The table is then cleared. Smoking ceases until after the formal toasts. A wine glass is placed before each officer. The port is passed, each

officer pouring from the decanter and passing it to the left until all the glasses are charged. More than one decanter may be passed simultaneously starting at various points at a large dinner in order to shorten this interval and obviate the necessity of refilling them.

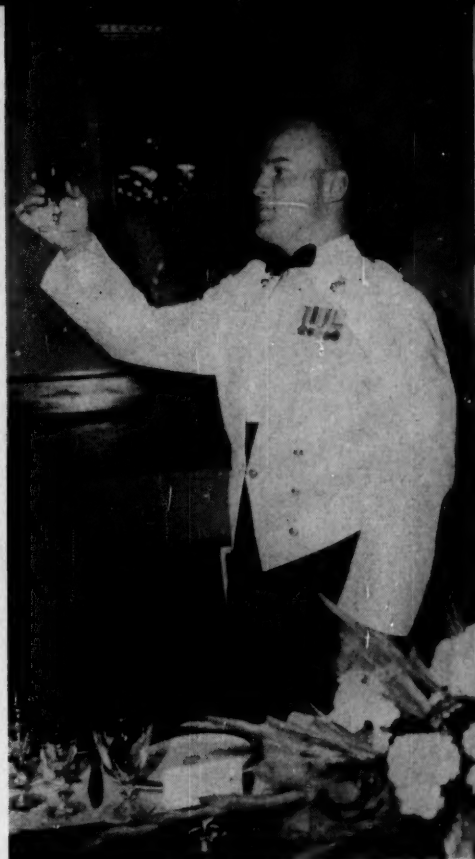
The Commanding Officer or President of the Mess then rises to propose the first toast. "Mr. Vice, the President." The junior lieutenant then rises, glass in hand, waits until all have risen, and gives the toast. "Gentlemen, the President of the United States." All repeat, "The President," drink, and again seat themselves. After a pause of two or three minutes a second toast may be drunk. If a foreign officer is present the second toast is always to the sovereign or president of his country. Lacking such a guest the second toast is usually to the United States Marine Corps. More toasts may be drunk, for instance it is necessary to do so should foreign officers of more than one country be present, but it

is well to limit them as far as possible. If the guest of honor is a general officer of the Marine Corps, and it has been arranged for him to speak, it is appropriate for him to respond to the toast to the Corps.

With the formal toasts over, ash trays reappear on the table. Coffee is served. Also cigars and cigarettes. The port is passed again. Conversation becomes general and the atmosphere becomes informal. All remain at table until the senior officers and guests arise.

The remainder of the evening may be spent more or less as impulse and ingenuity suggest. Singing is always in order, and by this time many officers are often pleasantly surprised to discover how really well they can produce harmony. There are also any number of parlor games and feats of strength, some of which are of such a nature that the temporary removal of dress coats and even shoes may be advisable.

Anyone should feel free to leave at any time after a decent interval.



Mr. Vice — "Gentlemen, the President of the United States"

If the usual custom is observed that no one is at liberty to leave prior to the departure of the Senior Officer, it will place the latter in an awkward position. He will feel he must leave early, even though his inclination is to stay on, in order not to inconvenience those who may have important duties the following day and wish to leave at an early hour.

Circumstances will frequently not permit an organization to lay on a Mess Night with all the formality as to uniform, dining facilities and table service that may be desired. This should not deter the organization from making the effort. The idea is to do the best one can with the means at hand. Mess Nights should not be scheduled regularly, in my opinion. It is better to wait until officers begin asking when the next one will take place. Thus it will be looked forward to with anticipation and never become a burden. Wherever the custom of Mess Night has been revived so far, it has been noted invariably, that although some officers did not evince much interest before they attended their first one, all reacted with a great deal of enthusiasm afterward, and looked forward to another. USMC



"Roast Beef of Old England"



➤ "IT WOULD HAVE BEEN A GOOD exercise if communications hadn't failed,"—a parrot comment at the critiques of almost all of our exercises. Unfortunately we have commanders and staff officers who use the "communications failed" theme to cover up their own shortcomings, but they are in the minority. The frightening thing is that so many of our otherwise capable officers do not understand the capabilities and limitations of our communication facilities and further, they avoid learn-

ing communications much as they would avoid the plague. As a result of this apathy, our communications suffer.

S. L. A. Marshall, in his *Men Against Fire* says, "Having started to call this chapter 'Communications,' I decided against it for fear that the use of that rather formidable word might interfere with my communicating to the reader what I regard as a vital but frequently overlooked principle. . . ." He claims that the word "communications" has be-

come another military catchall, and because it means so many things, it quite frequently means nothing. For this reason he called the chapter, "The Multiples of Information."

The meaning of the word "communications" is quite simple—it is the process of exchanging information. It is the implication of the word that causes the trouble. From the military viewpoint, the information may have to do with the maneuvering of troops, ships, aircraft or tanks; or it may have to do

OUR SEMI-DILEMMA

with intelligence, supply, personnel or the adjustment of supporting fires. The vehicle of exchange may be speech or radio, wire, messenger, visual or sound. S. L. A. Marshall's idea of discussing communications in terms of something else is like talking about VD in the hush, hush terms of a social disease. Let's bring it out in the open and discuss it objectively.

What are the causes of communication failures? Has the system failed, or have the users of the system failed to use it properly? These and similar questions can be debated endlessly without satisfactory conclusions, and it is not the intent of this article to further that debate. Nor is it the intent to offer a neat, cure-all solution to our complex communication problems. All that I hope to accomplish by this article is to point out: 1) the major communication problem which we now have, including those being created by atomic warfare tactics; 2) the capabilities and limitations of our communication facilities and; 3) what can be done to improve communications.

The primary cause of communication failures is operator failure. That is, the operator of the communication means, simply fails to deliver the message within the required time limit. Don't misunderstand, it is not Pfc Smith, who is struggling to deliver the message at whom we point the accusing finger. Nine times out of 10 he is doing the best he can with the training he has received, or more correctly, the training he has not received.

The only enlisted communicators who receive formal training are radio telegraph operators and a few of our communication chiefs. These

represent a pitifully small group of the total communicators in the Marine division. The voice operator, the wiremen, and the visual and teletype operators receive no formal training. These men usually join communication units after they have completed their recruit training and then receive on-the-job training. On-the-job training is seldom conducted by competent instructors, but is usually conducted by other on-the-job trained men. A case of the blind leading the blind. If communications are to improve, our communicators must be taught fundamentals by competent instructors. But where are we to obtain competent instructors if, to begin with, no one is first taught fundamentals?

However, it is not advocated that a plush school be set up for training our communicators. But it is essential that they attend a 5 or 6 week course, on a full-time basis, under competent instructors. If necessary, training can be accomplished at the regimental level provided that enough qualified instructors can be found, and spared, for a full time instructing job every few months. The instruction will be better and more economical if conducted by larger units. Perhaps 2 schools, one at Camp Pendleton and one at Camp Lejeune is the answer. Men selected for communication training could then attend these schools after they complete the weapons training courses at these 2 stations.

But even our best trained operators are helpless when their equipment fails, and equipment

failures are unavoidable. And therein lies our problem. We do not have enough trained electronic technicians to keep our equipment operating properly.

The enlisted technicians who maintain and repair our communication equipment are tops in their field. Equipment failures are not the result of a lack of training of our personnel, as it is with operator failures. The trouble is that our few technicians are spread too thin throughout the Corps to do anyone any good.

It may first appear that the obvious solution is simply to train more technicians, but this is easier said than done. To begin with, you don't take the first 10 men who walk by your door and make electronic technicians out of them. On the whole, men selected for this training are the intellectual cream of the Corps.

One of the most serious problems facing all branches of the armed forces is that of retaining trained electronic technicians. The services are competing with the electronic industry for these trained men. In fact when you come right down to it, the services are actually in the business of training electronic technicians for industry, and industry loses no time in getting their hands on these men. When the author was in San Diego, electronic manufacturers had representatives set up offices for the purpose of interviewing and examining graduates of our technical courses for possible employment at the completion of their enlistment. In fact, one company went so far as to send copies of their selection tests to the writer with a request that they be administered to graduates.

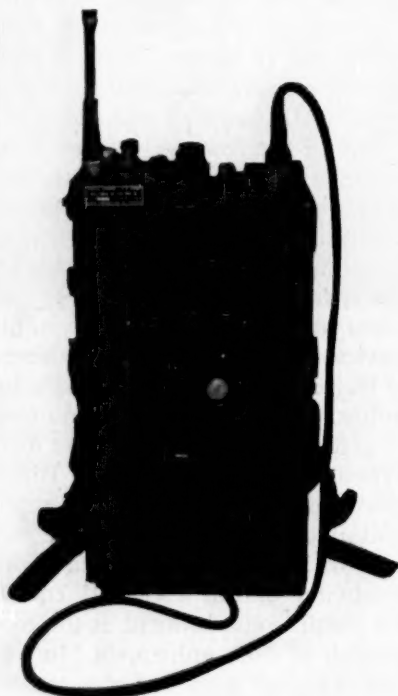
While all branches of the armed



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forces have made studies of how to retain trained electronic technicians, none have come up with a satisfactory solution. Under our present peace time conditions, there probably is no satisfactory solution.

Operator and equipment failures are not our only communication problems. The users of the communication system, unit commanders and staff officers, also contribute to communication failures.

Our combat units are powerful warclubs provided they are used properly. But to use them properly our commanders must know how to control them and, in modern warfare, control and communications are synonymous.

Too many of our officers do not know what communications are available for controlling their units, nor do they understand the capabilities and limitations of their communication facilities. As a result, they do not use communications properly.

What communications are available to control maneuver and fire support within a Marine division? For discussion purposes we can say there are 2 communication systems within the division—an infantry system and a supporting arms system. The infantry system consists of command channels and functional channels. Command channels are on a common-user basis and usually terminate in the unit's communication center. They consist of command radio nets, messenger, teletype and telephone service. Functional channels are usually controlled by individual staff officers and serve a particular function of command. The unit tactical net, the division intelligence net, and the division infantry common net are examples of functional channels. The supporting arms system usually consists of channels for artillery, NGF, air and other supporting units. These channels terminate in the FSCC at division and with the supporting arms liaison officers, who are in close proximity, at regiments and battalions.

The number of infantry channels between echelons decreases as we move from division down to the rifle companies, but at the same time the number of supporting arms channels increase. As a result, the total number of channels between echelons remains fairly constant. Normally there are 12 channels between and,

or in the vicinity of, the rifle companies; 14 channels between regiment and battalion, and 15 channels between division and regiment. With all of these channels we might ask ourselves, "Are we ever really out of communications?" Probably not; it's just a matter of educating the users as to existing channels, and their physical location. If the air liaison officer at battalion, for example, wanted to request close air support and his communication channels were out, he could in this emergency, use any of the other channels for getting the request back to the DASC and to other air liaison officers.

Although there are a great many channels of communications between echelons within the division, these channels have a definite range and message handling capability. Our communication equipment also has a definite range beyond which communications are not dependable. How many staff officers consider this range, or consult the communication officer about this limitation before they prepare their portions of the Op Plan? Too few. They disperse units beyond the dependable range of communication equipment, or burden the communication system—and subordinates—by asking subordinates for detailed, and often times unnecessary, reports—then wonder why communications fail.

The constant bedeviling of lower units for information usually contributes little or nothing to the tactical progress. But it does hinder the lateral flow of information since, in most cases, the same channels are used for both lateral and rearward communications. In almost every case lateral flow of information is more important to the success of an operation than the rearward flow of information.

Agreed, we can't adjust the tactical situation to fit the communications. But if our staff officers understand the range and message handling capability of the communication system, the Op Plan can be written to bring the volume of communications more in line with the capabilities of the system.

Proper use of the system also includes proper use of equipment. We must keep in mind that we are using field equipment and cannot expect the same quality of service as we get from the equipment we use when in

garrison.

In addition to conventional warfare, our training exercises now emphasize either all-out, or limited atomic warfare, and this calls for a revision in our way of thinking about communications, or we are headed for even greater communication problems.

The gist of atomic warfare tactics appears to be as follows: An attacker must be capable of rapidly massing his dispersed forces, accomplish his mission, and then disperse again so as not to offer too juicy an atomic target. A defender must be capable of massing and co-ordinating fires of his dispersed units. Each dispersed unit will probably be a self-sufficient combat force with its own fire and logistic support units. This of course will reduce the volume of communications to supporting units external to the force. However, there will continue to be a substantial volume of communications to higher headquarters and to other dispersed units.

Dispersion creates a serious communication problem. The problem is not, as many persons believe, that we do not have powerful enough radio sets to cover the distance. The problem is that dispersion limits our means of communications. Time and space factors usually will not permit the installation of wire, and with an enemy occupying the terrain between dispersed units, even helicopter installed lines would soon be destroyed. Our supplementary means of communications, visual and sound, are impractical. And because of the transmission characteristics of radio waves, we are even limited in the number of channels available for radio communications.

All of our present radio sets may be placed into one of 3 different groups, high frequency (HF), frequency-modulated (FM) and very high frequency/ultra high frequency (VHF/UHF). Our only dependable long range sets are HF. While FM and VHF/UHF sets are used on the bulk of our nets, they are limited to line-of-sight, 10 to 15 miles, and therefore are not dependable for long ranges. So if units are dispersed beyond 10 to 15 miles, we are left with 2 means of communications—messenger and a very limited number of HF radio channels.

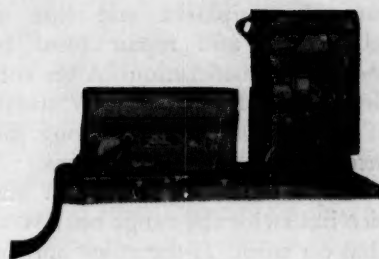
A good messenger is our most re-

liable and secure means of communication, and with the advent of atomic warfare he will carry most of the messages between dispersed units. This may come as a surprise, living in an electronic age, but still depending on one of the most ancient means of communications. The reason becomes fairly obvious however, when we remember that most of our messages are now handled by telephone or voice (FM) radio. But in future wars, we either will not have these means, or if we do have them it will be to a limited degree. Wire, telephone and FM radio will probably only be used for communications within dispersed units.

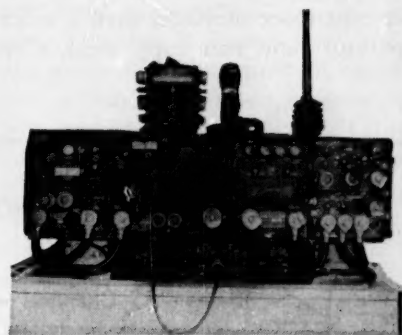
To a certain extent, multichannel radio relay will be used for communications between dispersed units. Multichannel radio relay is simply a means of communications whereby several telephone channels are superimposed on one radio circuit. These telephone channels are usually connected into the unit switchboard and from the users standpoint are the same as wire telephone channels. But unless relay stations can be established between dispersed units these sets are limited by the line-of-sight range of the equipment. To establish relay stations we must have control of the air and ground between dispersed units.

When you actually come right down to it, our few HF radio channels are the only means of long range, rapid communications. We can use these channels in several ways. We can use them for voice, telegraph (CW), radio teletype (RATT), or facsimile (FAX). But we must budget our few channels as carefully as we budget our money. In terms of the number of channels required, facsimile is the most expensive. Depending upon the definition of the picture, and the speed of transmission, facsimile may require the equivalent of up to 50 CW channels. Voice is the next most expensive, requiring the equivalent of about 5 CW channels. Next to CW, radio teletype is the cheapest in that it can be superimposed on a voice channel, so that we get teletype and voice for the price of one voice channel.

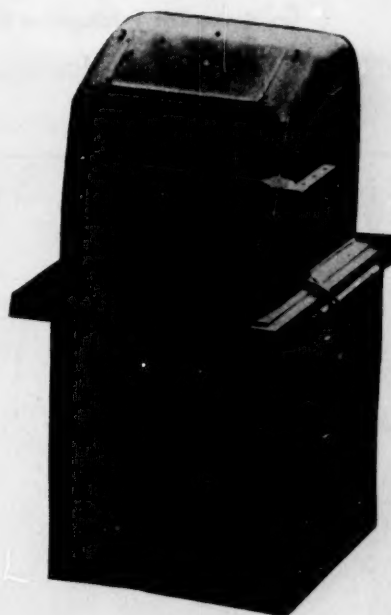
Economy of channels is not the sole criteria for determining the



AN/GRC-9
Vehicular Mount



AN/MRC-36, 37, 38



Teletype

means. Other factors such as the rate of handling messages, the portability of equipment and ease of maintenance and repair must be given due consideration. After consideration of all factors, CW stands out as our best means of long distance, rapid communications. A radio set designed for both CW and voice has twice the range on CW as it has on voice. If the voice portion of the set is eliminated, the set can be reduced in size and weight by a factor of one-third, or the CW range can be increased by about one third. Elimination of the voice portion of the set also simplifies maintenance and repair. A CW radio set is much more simple than a voice set. A CW operator can handle 50 to 100 per cent more messages than a voice operator, and can copy weak CW

signals through interference better than voice signals. And of course, channelwise, CW is our cheapest means of communications.

Regardless of the means of communications employed, we will not have the plush communication system which many of our commanders now feel is necessary. The HF radio channels must be reserved for only the most important and urgent messages. Helicopter messengers will deliver lengthy messages, maps, overlays and other bulky documents. In a nut shell, we are going to have to learn to do with less communications than we now have.

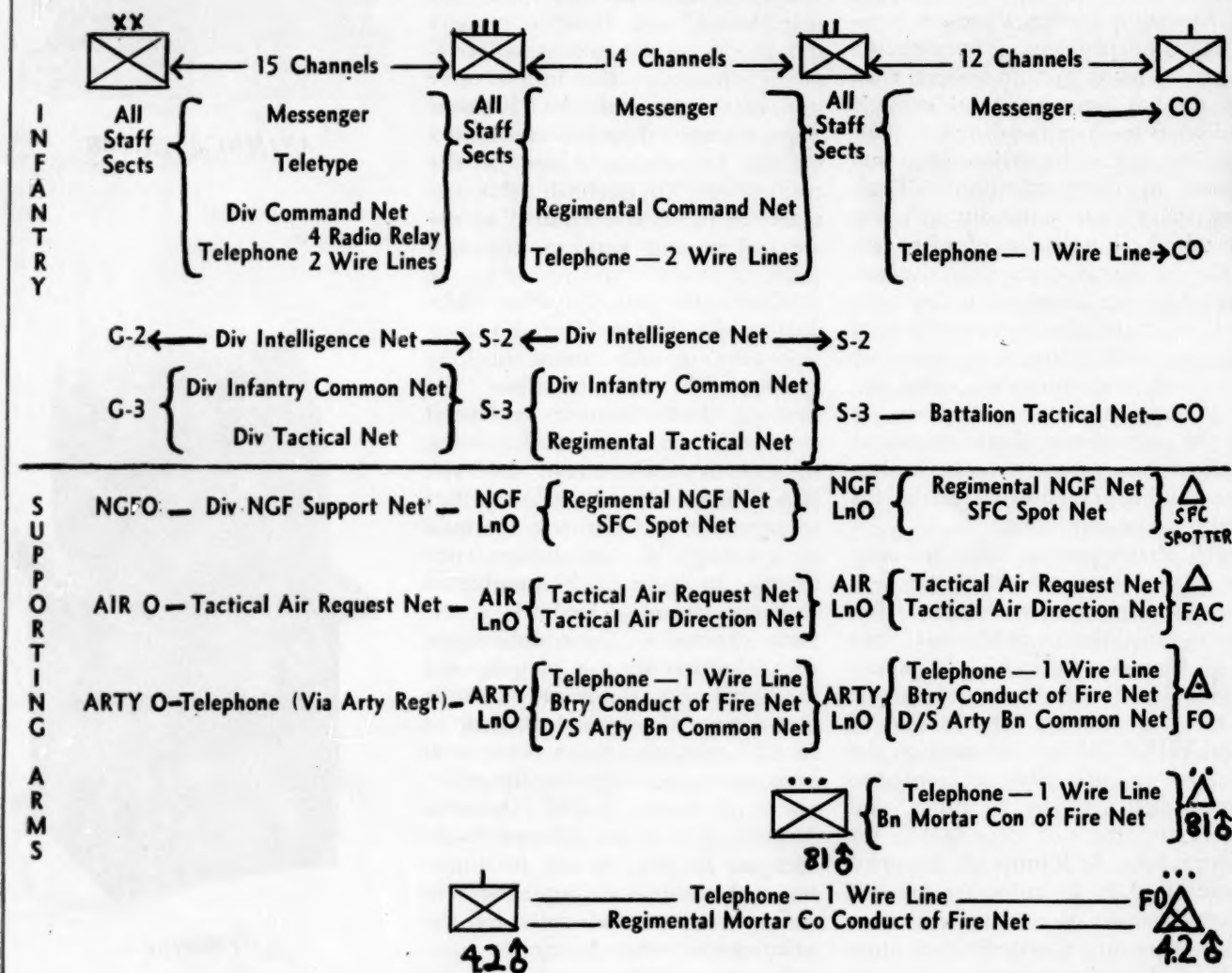
The time to start training to do with less communications is right now. But how are we going to fight modern warfare with less communications than we now have?

Here we might take a lesson from the Russians and their system of sending highly qualified liaison officers to subordinate units. These liaison officers have authority to act in the name of their commander and may even relieve subordinate commanders if they feel it is necessary. Of course a "big brother" type liaison officer would be awfully unpopular in this country. However, such a liaison officer, stripped of some of his authority, but with the authority to make limited tactical decisions in the name of the commander might be worth trying.

The following are more immediate means of reducing the communication burden.

We should have battalion and regimental commanders trained and allowed to operate independently

NORMAL DIVISION COMMUNICATION SYSTEM





Radio relay takes over . . .

on assigned missions without the necessity for detailed guidance from, or the submission of minute reports to, higher headquarters. Messages to and from a unit operating under such orders could be limited to reporting that the mission has been accomplished; to ask for additional support in cases where organic support units are insufficient; to receive, or pass on, warnings of major air, surface or atomic attacks; and to pass on intelligence information.

There should be greater personal contact between units. Combat orders are important and necessary documents in that they are concise and to the point in giving information to subordinate commanders. But because they are so concise, the intent of the senior headquarters is

not always completely understood. Frequent staff visits and personal contact between commanders would help clarify the exact desires of the commander much more effectively than a lengthy exchange of messages.

We should make greater use of short prearranged message codes. Most messages sent during combat follow one of several definite message patterns. Usually only a few key words are changed, such as unit designation, co-ordinates, time and perhaps geographical locations. Most messages could be boiled down to a standard fixed text form. Using these forms, only key words would need to be transmitted and the receiving operator could "plug" them into the appropriate fixed text message. In other messages code words could be used for commonly used phases or for entire short prearranged messages.

We must have strict adherence to, and training in, all standing operating procedures. Often a subordinate commander will send a message requesting guidance on a point which is covered in an SOP. Rather than reference the SOP, the senior headquarters will send a lengthy detailed account of what should be done. SOPs can be very effective but they must be used in training and strictly adhered to in order to be effective.

Administrative type messages must be reduced to a minimum. Most of

our administrative messages contain information which can be held until after the smoke clears. Then they can be sent by messenger.

In preparing combat orders, keep in mind that communications are going to fail at times regardless of what we do to prevent such failures. SOPs should cover procedures to be followed when communications fail, and these should be referenced in the Op Plan.

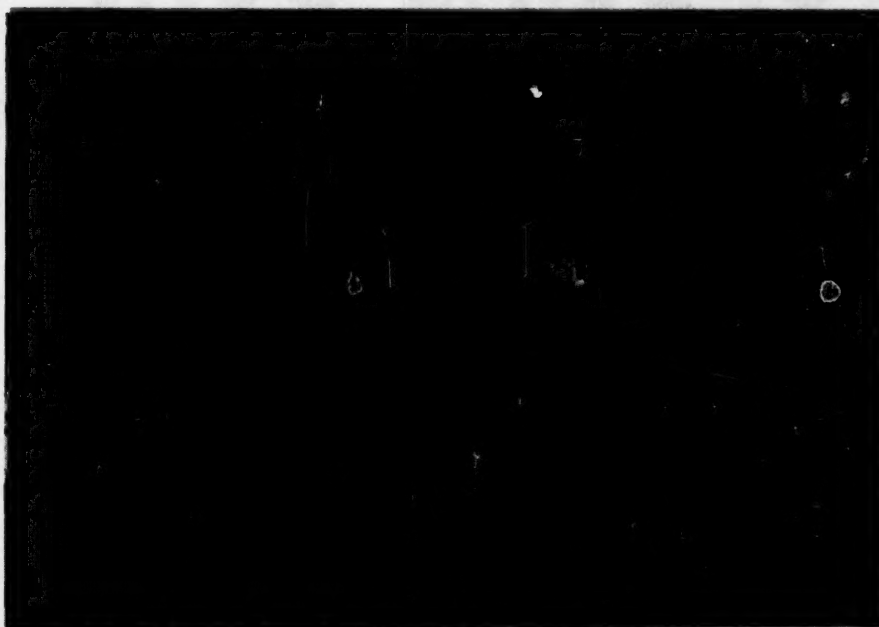
No claim is made that this article presents *the*, or even *a* solution to our communication problems, but it has brought some of the major problems out into the light for all to see.

In summing up the actions which can be taken to improve communications, the following stand out as the most important.

- 1) Establish a 5 or 6 week training program with competent instructors which all enlisted communicators would attend on a full time basis.
- 2) Take every action possible to retain trained electronic technicians in the service.
- 3) Educate the users of communications as to its capabilities and limitations.
- 4) Train to do with less communications.

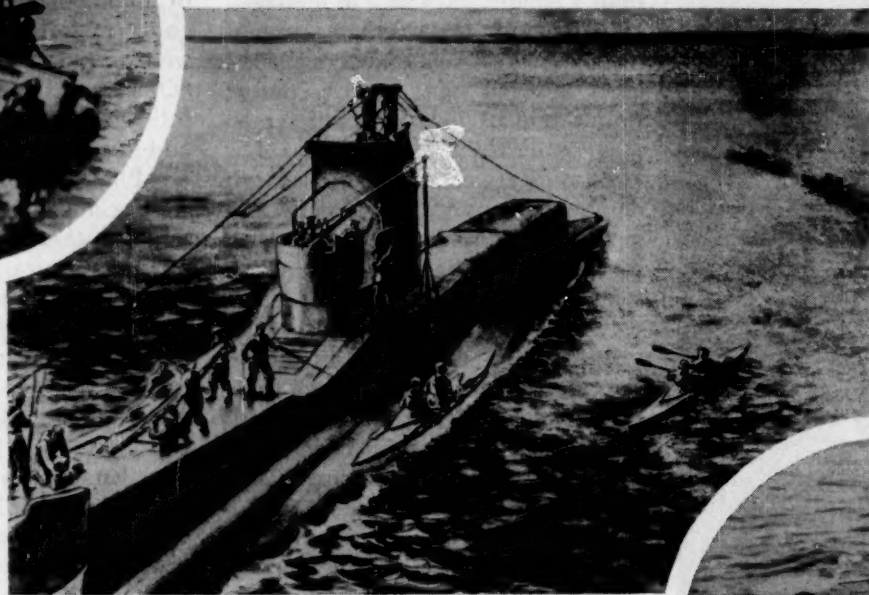
Whether our communications go from the semi-dilemma stage to either the full dilemma or the satisfactory stage depends not only on the communicators, but also on all hands taking a greater interest in communications.

USMC



. . . when the wires are down

Illustrations from Royal Navy



For a group that can tie up superior enemy forces and do
damage all out of proportion to its size, look to the . . .

SPECIAL BOAT SECTION,

WITH THE FALL OF DUNKERQUE in 1941 the British Army had suffered considerable losses in men and equipment. However, the bulk of the British Expeditionary Force was extricated with its morale high considering the new standards of warfare it had been subjected to during the previous months, such as Stuka dive bombing, armored pincer movements and fifth column agents.

That morale was high was demonstrated when a small raiding force of army officer cadets returned to France one week later to obtain information. They landed at night from a small fishing boat and were ashore some 7 days before being discovered. During this time they had

radioed back the names, numbers and disposition of the local German units. Eventually some of these men were able to escape to Spain via Vichy France. This little operation set the pattern for many hundreds of small scale raids by air and land, both on and under the water. Such operations today are the responsibility of the Special Boat Sections of the Royal Marines.

Throughout 1941 many such raids were made against the Atlantic seaboard. While the Royal Air Force was fighting the Battle of Britain the intensity and size of these raids increased, culminating in the formation of the commando units.

One of the first units of the Royal

Marines to be formed for such purposes was called the Royal Marine Boom Patrol Detachment, a cover name for its secret training activities in a small harbor to the east of Portsmouth.

The main problem of small scale raiding in the early days of the war was to be able to approach an enemy coast line or harbor from the sea without being seen or heard. Today, the underwater approach presents an obvious solution, but in 1941 such ideas were only experimental. Rubber boats and dinghys proved difficult to handle, required 3 or 4 men to operate and were unsuitable for long distances. In search of a solution during the war, over 25 different

types of kayaks, canoes and folboats were officially developed, and many of these types are still used today. Mostly they carry 2 men and are operated by double paddles. Some are capable of being sailed at sea over long distances.

The canoe lends itself to such work because it has a low silhouette, being practically invisible head-on at night. It is capable of negotiating rough weather and surf owing to its relative length. Men are able to paddle it 20 or 30 miles a night and carry or portage it ashore without undue physical strain. The overall proportions of the canoe allow it to be loaded and unloaded complete through the torpedo loading hatchway of a submarine.

After months of hard training in swimming, canoe handling, navigation, seamanship, escape and evasion technique, weapon training and map reading, the first unit of picked volunteers was ready for one of its major operations. "Operation Frankton" laid the basis for all future training and planning policies in this type of warfare.

On the night of 7 December 1942, five 2-man canoes were launched from HM Submarine *Tuna* at the entrance to the Gironde river on the west coast of German-held France.

In negotiating a narrow passage between anchored vessels and the mole at Le Verdon, another canoe lost formation and was not seen again. Thus by the end of the first night only 2 boats had survived. By daylight they had taken their canoes ashore and concealed the boats and themselves.

On the second night the canoes were portaged across three quarters of a mile of mud and sand to the launching position. Another 20 miles of paddling and a day spent resting in a field saw them with 45 miles to go. Underway again the channel was beginning to narrow and observation was possible from both banks. Progress was made using the cover of reeds and sand banks.

On the fourth night, the craft reached a pontoon pier opposite the south basin of Bordeaux. Passing it safely the crew found a gap in the reeds through which they entered the basin. Daylight revealed several good sized merchant vessels about a half a mile away, so crews spent the evening priming their limpets. In the darkness of the fifth night one canoe passed the entrance of the harbor on the west bank under the shadow of the lock gate lights. Eight mines were planted by her crew, 3 on a 7,000 ton cargo ship, 2 on a

Royal Navy was charged with the task of reconnoitering all beaches required for future amphibious landings. Known as Combined Operations Pilotage Parties some 10 of these units numbering 16 men, operated throughout the later part of the war, and provided the information for landings in Sicily, Italy, France and the Rhine crossing. Again the basic means of conveyance was the canoe. Under cover of darkness canoes would approach an apparently deserted stretch of a beach and heave-to or drop anchor. From this position silhouettes would be sketched and the bearings of prominent objects noted. Then one man would get out of the canoe, into the water and swim to the beach. Here he would take samples of the beach, mud, sand or shingle and place them in containers. Lines of soundings would be taken at 50-yard intervals by the man swimming on his back away from the beach using a small hand sounding line. The depths would be recorded on a special writing tablet attached to his arm. On returning to base, the gradient of the beach could be determined from this information.

Meanwhile another canoe team would have landed to a flank with the object of ascertaining the nature of the enemy's defenses. Their tasks completed, the boats would paddle out to sea to make their rendezvous with the submarine. It was here that the greatest problem of small

Royal Marines

By Capt R. D. A. Andrews, RMFVR

(Shown in sketch, left above.) Their task was to attack enemy shipping in Bordeaux harbor some 90 miles up the river by placing limpet mines on the ships' sides.

The weather was calm and the canoes assembled off the bow of the submarine in single line. After paddling a mile and a half the formation found itself in a tide race. One canoe was lost, leaving no trace. Shortly after, another canoe capsized. The crew, towed to the shore in their life jackets, was left to land, evade and escape as best it could.

transport and the remainder on a tanker. Meanwhile, the other craft had reached the east bank at Bordeaux, found no targets and returned to the south basin and placed mines on 2 ships. The task finished, both canoes returned downstream. At daybreak they landed to start an evasion trip to Spain. Of the 4 men, only 2 returned safely to England. Of the original 10 men, one was drowned and the remainder were shot by Hitler's order in March 1943.

Throughout 1943 other small raiding units were being formed. The



scale raiding presented itself. It is of the utmost importance in reconnaissance work that all men and equipment should be recovered without leaving the slightest trace of their activities. Any such mistake might well compromise the success



Inflatable rubber boats

of the intended operation to follow. However, it is extremely difficult for canoe teams, on even a calm night, to find a surfaced submarine some 3 miles off the beach.

During this period the first of the frogmen were making trials in England after the success of the Italians in crippling the battleship *Queen Elizabeth* at Alexandria. The advantages of the underwater approach for ship attack and beach reconnaissance are apparent, but while underwater beach reconnaissance is satisfactory for finding submerged obstacles it is not so suitable for other tasks. The breathing apparatus is extra equipment to be carried. The face-piece restricts vision and movement ashore, if required, is difficult. From the point of view of a concealed approach to the beach it is usually possible to reach the wading line on a dark night by a surface swim. From here concealment may be found by duck diving or hiding in the surf.

With the development of parachuting skills, raiding took on a third dimension. The army formed units known as the Special Air Service. These units were distinct from the ordinary parachute regiments in the same way as the canoe raider was different from the commando unit. They were formed, trained and operated in small numbers only. Toward the end of the war individuals and small parties of men were being dropped practically every night into some part of Europe from Norway to Yugoslavia, either to destroy some installation or to reconnoiter a potential air strip to be used in the first phase of the amphibious assault.

Soon after the Normandy invasion the Royal Marines formed their second small scale raiding unit of picked volunteers, under the cover name of Royal Marine Detachment

385, for duty in southeast Asia. Based in Ceylon, they were joined by similar navy and army units to form an organization known as the Small Operations Group. This Group of 400 men, under the operational planning and administration of the Royal Marines, was the first organization incorporating every form of raiding specialist. They had a considerable amount of equipment that had been developed from experience gained during 4 years of raiding in Europe. But the deterrent was the Japanese edict that all small operation parties captured behind the battle line would be executed. Such was the fate of a number of Royal Marine officers and NCOs of RM Detachment 385 and many others.

For nearly 2 years prior to the first atomic bomb on Japan, this organization made raids from Arakan in Burma to New Guinea and Sumatra. Before the British Fourteenth Army crossed the Irrawaddy leading to the capture of Rangoon, swimmers crossed this fast flowing river on several nights to bring back information regarding the Japanese strength and dispositions. Landing from rubber boats, and laden with stores, a patrol would penetrate deep into the jungle. Halting near a prominent topographical landmark the leader would fix his position as best he could and the remainder would bury the stores in the ground. Eventually the patrol would return to the beach having been away 8 or 9 days. Air crews of the Fleet Air Arm and the RAF, when being briefed for their various missions, would be informed of the location of these stores dumps. Then if they were shot down in the jungle they could make their way to the landmark and uncover the stores to find food, water, native money, weapons

and a radio.

There were many other such private armies and organizations, some uniformed, some not, conducting activities varying from offensive combat to pure spying. Often these units would work together contacting each other at a lonely rendezvous or by passing coded messages over the air.

With the end of the war, the Small Operations Group broke up and the various units returned to England. During the demobilization the role of these raiding parties in peace time was being decided. In general, the decision was that the Royal Marines should be responsible for the bulk of such activities, including a certain amount of underwater ship attack. From this decision there has developed a unit known as the Special Boat Section—a formation unique in the world for the diversity of tasks allocated to it and the methods by which those tasks are solved, requiring a standard of individual training, both mentally and physically, of all concerned that is second to none.

A Special Boat Section (SBS), commanded by a captain with one lieutenant and about 25 other ranks must be able to carry out any form of raid that during the war was executed by any one of the specialist units. To consider the training of an SBS we will follow the experiences of a young Marine who has volunteered for this kind of work.

Before being accepted to commence the basic 9 weeks course at the Amphibious School, Royal Marines, the candidate must have com-



Paddle board

pleted a tour of duty with the Fleet or the Commando Brigade, Royal Marines. He will be required to pass a swimming test of one mile free-style and show that he can do the Australian crawl. He will be invited to pick up 10 metal dinner plates from the bottom of a swimming pool in one dive and enter the water head first from an 8 foot diving board. Having been recommended by his commanding officer with particular reference to his moral fiber he will be allowed to attempt the course.

Every day throughout the course he will go for a swim before breakfast. If the weather is too cold the time will be devoted to road work or physical training in boots and anklets.

Parading by 8 o'clock, the first period will be devoted to visual signalling. By the end of the course he must be able to read lamp at 6 words a minute and semaphore at 12.

The first 2 weeks of the course is normally devoted to small boat handling, starting with the general service Mark I canoe. Initially he will carry out stability tests, standing up in a canoe, getting in and out of the boat at sea without making the slightest noise and keeping the silhouette as small as possible. Next, capsizing drill; here the canoe will be deliberately turned over. The occupants break out, secure their paddles to special hooks and return inside their cockpits with their heads above the internal water line and breathing the air contained in the canoe. Next they make fast the canoe cockpit covers so that the minimum amount of water will enter when the craft is righted.

Next the trainees are exercised in the use of paddles, single and double, ahead and astern. Then they learn how to come alongside a jetty, to approach a beach tactically and how to anchor. Their first long paddle will be only 3 miles until those shoulder muscles are broken in. The second week will be devoted to increasing their paddling range by the end of which teams must be able to make 20 miles in about 8 hours. Other periods will show them how to maintain boats, how to steer a compass course and other instruction in seamanship.



Australian-type, surf boat

Swimming and diving take up the next 2 weeks of his time. The trainee at the end of this portion of the course will be expected to launch himself from a canoe at night at one end of a large lake in a frogman's suit, fins and breathing apparatus and carry out a surface approach swim of a quarter of a mile until within about a hundred yards of his target—then submerge and make his final approach guided by an underwater compass, place a dummy limpet mine, swim away, surface and return to his canoe.

During the week of diving the class will be shown how to operate the underwater breathing apparatus. Their first test will be to enter the swimming pool and sit on the bottom for 5 minutes. If they can do this without trouble at the first attempt they stand a good chance of making the final grade. Most of the second week will be spent at the lake diving and swimming 3 or 4 times a day, staying under water for periods up to an hour, learning how to find buoyancy in the water and how to surface without making a noise or disturbing the water and operating at night. It is during this week that some of the candidates flunk out and are returned to their units. The successful ones are not, by any standard, frogmen. But when they come to join an SBS they should be suitable material to start diving at sea and to carry out collective training.

The third phase of the course, lasting 2 weeks, is devoted to canoe and small boat navigation. This explains and shows the use of tidal triangles, running fixes, dead reckoning, leading bearings, speed trials and the like. It is emphasized that good navigation at sea is essential if canoe teams are to find the correct

beach, locate the entrance to a river or make a rendezvous at the right place and at the right time.

The next 2 weeks is devoted to tactical training, escape and evasion techniques. Movement across country with or without a compass and the methods of concealing the 17-foot canoes are taught and exercised. Marines are expected to be able to sleep and cook by day in the field while remaining hidden at all times. Students are required to make a list of all stores they would take on a 6-day penetration job. Such a list can easily number some 50 items any one of which, if left behind, would reduce their comfort or efficiency. In this course elementary demolitions are taught, including the care and use of explosives and simple calculations.

The last week of the course consists of a 4-day exercise incorporating all phases of the previous weeks' training. Two days will be spent in briefing and in the preparation of stores. In a typical program for such an exercise the class, now numbering about 5 or 6 canoe teams, will put to sea from Portsmouth harbor early at night in a submarine or patrol boat. After about 4 hours they will be released and the leaders told of their approximate position. From here the canoes will paddle about 20 miles to the Isle of Wight, escorted by a safety boat in rear. On the Isle of Wight they will lie up for the day, rest and prepare for the next night's task. The instructors will spend the day looking for the concealed canoeists and if both men of a team are found asleep they will probably flunk the course automatically. Early the next night the leaders will put on rubber swim suits and fins, the canoes will be launched and the task will be to

attack small fishing boats in Southampton water. A paddle of 5 miles will bring them within the target area and swimmers will be released from their canoes to make a surface swim attack on the boats. Using flot-sam and jetsam as cover, the swimmer will slowly drift with the tide towards his target, place his charge and drift on. Meanwhile his canoe, operated by one man, will have paddled round to the swimmer recovery position. The swimmer will enter the canoe and the team paddles away to find a lying-up position for the second day.

The following night's target will most likely be an aircraft control tower and radar station. This will involve a 2-hour approach march followed by a careful infiltration onto the station which will be fully patrolled with sentries and police watch dogs, all under the general direction of the instructors. The more original students dress up as senior naval officers, steal jeeps, fire engines and ambulances and try to bluff their way in and out of the station via the main entrance. However, by dawn the raiders must be back with their canoes to hide for yet another day. Cold, tired and miserable, they find the rations for the day fairly low. The last night's exercise will require the canoe teams to move across country a distance of some 20 miles to the Royal Marine Barracks at Portsmouth without being discovered. As the men by-pass villages and cross roads they are never sure if the voices they hear are those of the instructors looking for them or the local inhabitants returning from an evening's drinking at the local pub. Every time the headlights of a car flash against a hedgerow the Marines dive for the ditch, for the car may be a jeep. Eventually the raiders stagger into barracks early on Saturday morning. Breakfast will be followed by debriefing and destoring.

Having passed the course, the trainee is rated as a Swimmer-Canoeist 3rd Class, for which he will receive an extra sixpence-a-day (10 cents). This means that he is just beginning to know his trade. However, before he can be posted to an operational SBS he must take the army parachute course. This will

consist of 2 weeks toughening up, which Marines seem to take in their stride, followed by 4 weeks training in parachuting techniques. He will be required to make 2 jumps from a balloon and 6 from an aircraft before being awarded his wings.

When he has joined his section he will make water jumps. Throughout the summer under the shelter of the Isle of Wight, Marines may be seen floating down to the water wearing their rubber swim suits and fins. As he drops, one man may release an equipment container holding a self-inflating rubber boat, another will drop with the paddles. By such methods it is possible to attack the sluice gates of an important reservoir 300 or 400 miles behind the enemy's shores.

Throughout his time in the section the original trainee will be paired off with a corporal or sergeant to whom he will act as assistant and wherever possible they will exercise and train as a team. Special Boat Sections are constantly being required to give demonstrations and to test the seaward defenses of NATO countries all over Europe. Recently, 3 sections based themselves on an old Dutch barge, and for 4 successive nights raided the naval headquarters and ships based in the Hook of Holland. One of these SBS came from the London Center of the Royal Marine Forces Volunteer Reserve. The standards for the Reserve sections are exactly the same as the Regular Corps. However, on a part-time basis the basic 9 weeks course takes about 2 years to complete.

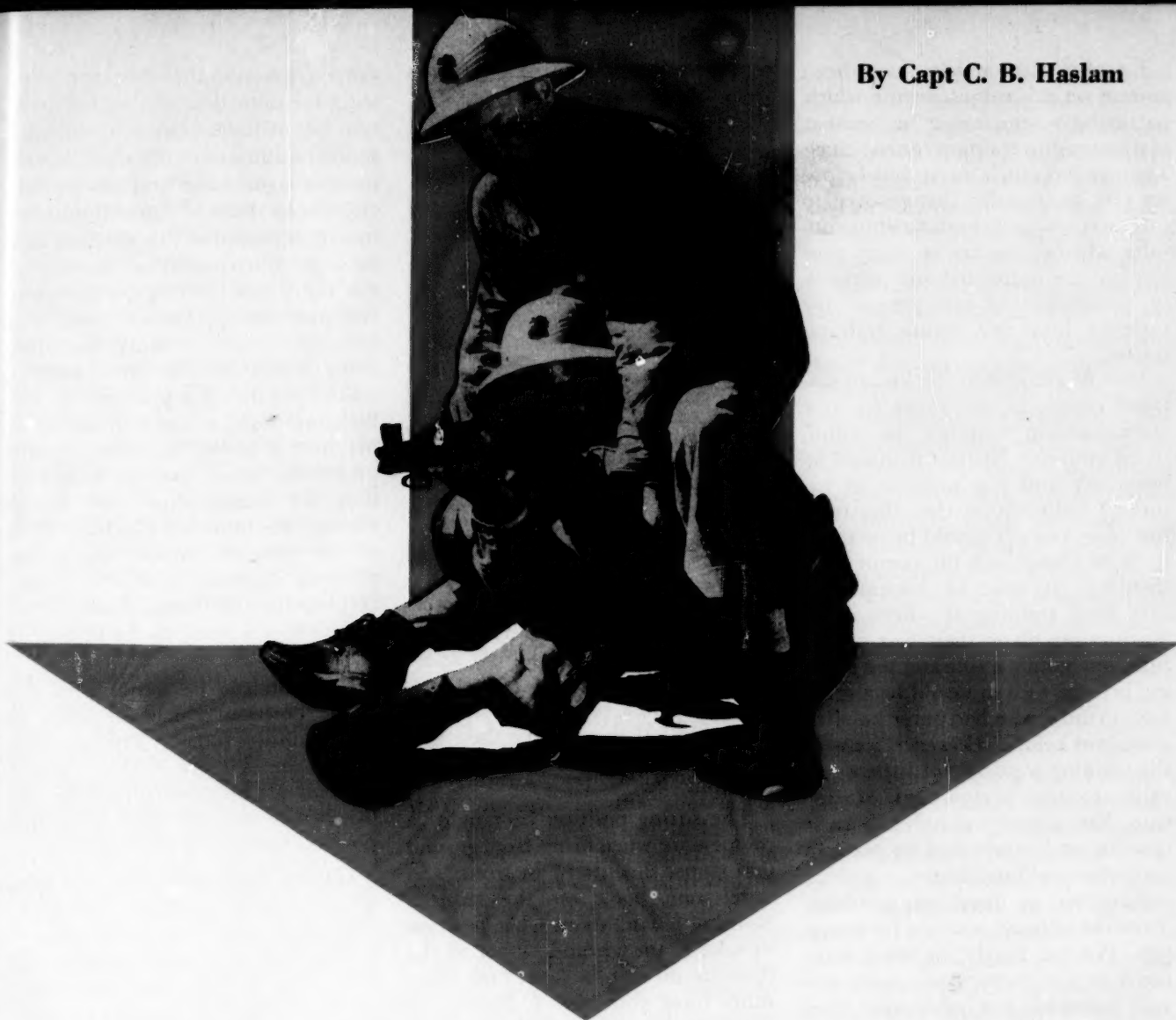
Having completed 2 years with his unit our operator will probably want to advance himself to the 2nd class rate and to the rank of corporal. So he will return to the Amphibious School to take a further 8-week course and specialize in either ship attack or beach reconnaissance. The 2 courses are run concurrently, one man acting as assistant to the other in one role and vice versa. The ship attack man is expected to be able to attack shipping at night by means of underwater swimming in harbors and estuaries. The reconnaissance man will execute all phases of beach work tactically at night, return to base

and present the information in the form of a graphic report. Such a report will include silhouettes, photographs, gradients, tidal conditions, navigational hazards, enemy dispositions and the nature of the defenses.

Both men as junior leaders should be able to instruct in their subject and will at some time have to take a general test for the rank of corporal. Men eventually selected, usually sergeants who have already proved their suitability, are allowed to qualify for the 1st class rate. In this course the emphasis is placed on the planning and administration of small scale raiding. Such men must be able to expedite all phases of a raid for they may be placed as the force commander of a 2- or 4-man operation.

It is interesting to note that the standards set today by the Marines of an SBS are higher than those attained by the specialists units during the war. The 41st (Independent) Commando which operated in Korea during 1950 and 1951 had a number of swimmer-canoeists within its organization. Operators were used for normal small scale raids by canoe and for general commando duties.

While atomic power, guided missiles and jet aircraft may hold the key to successful campaigning in the next major conflict, there is no doubt that small groups of highly trained and determined men can obtain vital information and at the same time harass and hunt the enemy. Thereby they tie up superior forces, while they, themselves form a target too small and difficult to locate to warrant an attack by other than conventional weapons. When the enemy has a decided numerical advantage such methods of warfare may make contributions out of all proportion to their size and cost. In particular they have one tactical advantage in the ability to direct their efforts at the exact spot required. It is possible to bomb submarine pens without having any effect on their daily activities, but one limpet mine placed on the hinge of a sluice gate may cause havoc for weeks to come. Likewise, information about the enemy's defenses and beaches will always be vital to amphibious operations. US MC



OUR SHOOTING POSITIONS — UNREALISTIC!

Things have changed since 1775, but our rifle qualification positions still hark back to the days of volley-fire and mass combat formations

IN ORDER TO FORM AN EFFECTIVE combat team it is necessary that each individual of the team be a good shot. Individual skill results from correct training and practice in rifle marksmanship. Of what is rifle marksmanship comprised? Manuals on the subject, of which there are many, state that it is divided into two phases: 1) preparatory training and 2) range practice. In turn, the former is broken down into 6 steps

which consist of various exercises and the latter, range practice, is broken down into 2 steps. These are, 1) instruction in which the Marine applies the principles learned in the preparatory training and 2) record firing in which the Marine tests his ability as a rifleman.

What ability as a rifleman? Is it ability to blacken sights, to adjust a sling to an arm, to spread a poncho on the muddy ground so not to get

a posterior wet, to wear a shooting jacket to protect a shoulder, to wear shooting glasses to permit the target to stand out against a dull background? Is this the marksmanship training that prepares a Marine to enter combat? Unrealistic is the word for it in my book. Every step mentioned above is permitted on the rifle range and yet not one of them is utilized on the field of combat.

I realize that articles have been written on this subject before which particularly emphasize a combat marksmanship training course. Such a course has much merit, but before we can successfully change over to such a course it is high time to consider whether we are to carry over some of the outmoded and unrealistic procedures of our present day training into any future training course.

First of all, should the known distance ranges in use today for our marksmanship training be eliminated entirely? No, but it should be secondary and not primary in nature. I believe that the rifle training as we know it should be retained in Boot Camp and for competitive shooting. It must be remembered that Boot training is where many Marines are given their first opportunity to handle a rifle and the training presently given would be a great asset to those who had never handled a weapon before. However, some of the training would be of little or no value to the professional Marine who has already completed basic training and would find no place in a combat training course.

First, let us dwell on positions. Take the offhand position for example. We are taught to stand half-faced to the right, body erect and well balanced, feet positioned from 1 to 2 feet apart, left elbow well under the piece and so on. Just why such a position is included in our marksmanship training is beyond comprehension. Is the offhand position ever used during combat? I have yet to meet anyone who has ever used it or known it to be used; in its present form that is. Naturally it is used in a modified form; resting the barrel on an artificial rest, such as a high fence or braced against the side of a building and many others. But to think of a person standing in the open terrain, with his feet spread 1 to 2 feet apart, his body erect and well balanced is certainly slightly absurd in my mind. It perhaps might be a hand-me-down from the days of the American Revolution, when the British, dressed in brightly colored uniforms, would charge en masse. Presenting a solid front they would march toward their enemy firing volley after volley from the offhand position. Things have changed since the year



1775, but to look at our rifle training course one would hardly know it. I always thought that one presents as little a target as possible to the enemy. If this be true then why even teach the ridiculous offhand position?

The sitting position "is taught to compensate when firing from ground that slopes downward in front." So states one book on the subject. Nothing is said about what position to take if the ground slopes in the opposite direction. Now, how many times have you seen a Marine assume a sitting position during combat? Once again I know of no one person who has ever assumed such a position on the field of battle nor have I been able to find anyone else who has. For this position a loop sling is used. The sling is adjusted, twisted one half turn to the left, the left arm inserted into the loop; the pressure applied by some could well serve as a tourniquet. In this position the shooter is half-faced to the right, the body leans well forward from the hips, the back is kept straight, and both arms are supposed to be inside the legs and well supported. Supporters of this position have said that it comes in handy when firing behind a low wall or when firing through a slatted fence. However, the majority seem to think, and I agree, that the prone position would be more appropriate and, I might add, a great deal safer.

The material I have at my disposal is unusually silent with respect to reasons for the position of kneeling.

For this position the same type looping mentioned in the sitting position is utilized. Once again, the shooter half-faces to the right, kneels on the right knee and sits on his right heel. For the contortionist we have a variation of this position and he is permitted to sit on the side of the right foot. Sitting on the right foot presents a problem to those who customarily like to move out after firing a few rounds from such a *stable* position. Supporters of the kneeling position like it in order to fire over a hedge, but the majority prefer the prone position and find that the barrel slips very nicely through the branches which are close to the ground. Again, the prone position dispenses with the danger of presenting a 10-inch bulls-eye, in the form of a head, to the opponent across the way.

No fault can be found with the prone position which we teach in our training today. The position has merit. A body in this position presents a minimum silhouette and the best scores are fired from this position since it is very stable.

Having dispensed with positions, let us discuss a few of the "bull's-eye" techniques presently permitted, or I should say advocated, on our rifle ranges. In order to make everybody an expert rifleman we resort to such unusual techniques as blackening of the sights. Carbide lamps and other sight blackeners are available on the firing line. Before each man takes his position on the line, he takes his turn preparing his sights. There is no doubt about it—such effort usually pays off—except on the battlefield where there are no carbide lamps, few candles and what there are of them are usually put to a better use—providing light. I am not saying that rifle sights are not blackened during combat because of no lamps or candles. I venture to say, even if you issued one carbide lamp per fire team, nobody would even think of it. Even if they did, they wouldn't use them.

The poncho and shelter half are other devices which assist Marines in making better scores on the rifle range. Originally the poncho and shelter half were designed to protect Marines from the rain—as wearing apparel in the case of the former, and to provide shelter in the case

of the latter. However, these items serve a dual purpose. For example, signs on the majority of our rifle ranges state "It never rains on the Rifle Range." Now, this is actually true. Although it may be raining you may rest assured that no Marine will get wet, even when firing from the prone position. Once again a Marine's ingenuity comes forth and keeps him completely dry. He doesn't dodge raindrops but he does the next best thing. He produces a clean dry poncho or shelter half and carefully spreads it over the muddy firing line. I know because I do it myself. During firing it is immaterial if the left elbow slides out of position on this smooth surface. The big thing is to keep the body dry and the body here includes the elbow.

Every Marine on the firing line must wear a shooting jacket. This is a dungaree jacket, as a rule, well padded to protect the shooter's elbows and right shoulder. Although the majority of firing lines are relatively soft and contain large amounts of grass it is necessary to protect the shooter from chipped elbows and sore shoulders. Therefore, we require that a shooting jacket be used.

Some Marines go into this shooting business in a big way. Many slip a well-padded shooting glove over the left hand in order to compensate for the pain which is present when the left hand comes into contact with the upper sling swivel. The shooter's glove eliminates this pain and helps the marksmen get



much better scores.

Those who wear a shooting jacket and glove usually have a pair of expensive shooting glasses. These glasses are usually fitted by an optician, have either green or yellow lenses and are especially helpful in that they relieve the shooter of straining his eyes when looking at the target. Try a pair sometime, on a dull, overcast day. When wearing these glasses, the target literally jumps at you.

For some strange reason, however, neither shooting jacket, shooting glove, carbide lamp, nor shooting glasses are issued to Marines entering combat.

Some of the 'die-hards' will now say, "What is this guy trying to do; eliminate rifle competition?" My

answer is emphatically "No." I believe that competitive shooting has its place and should continue. Shooting is a lot of fun but, even more important, it sets a pattern that can make our country a nation of marksmen. However, I believe that some of the techniques presently taught in our present marksmanship training, such as those already mentioned, have no room in any future combat training course.

Future warfare will be at a fast pace and in all due respect to those who maintain that other forces of the military will carry the brunt of nuclear warfare, I believe that when the chips are down the same old dirty job will again be assigned to the riflemen. In order to permit them to do the job it is necessary to train them to the level of warfare which they will eventually come into contact with. I sincerely believe that our present form of marksmanship training is not geared to accomplish this.

Like others before me, I believe that a new combat marksmanship training course is needed and I know that one is on the way. However, when it does arrive let us be ready to receive it in the light in which it was developed.

Discard the fair-weather Marine. Let him enter into the new combat course with true combat apparel. That includes helmet, armored vest and what have you. It will be no place for the utilization of offhand, setting and kneeling positions. A Marine will move forward at a crouch, at double time, and like in combat he will fire from a position which lends itself to the terrain and affords the marksman a maximum amount of protection. Take away his shooting jacket, shooting gloves and other score boosters — items which he comes into contact with every year on the rifle range, but never gets to see, or use in combat. Make him wallow through the muck, mire and slime; make him fire from, and in, it. We all know that the tougher it is in training the easier it will be in combat.

We Marines are *all* professionals and we now can afford to be particular. The Marine Corps has always been known and respected for its fighting ability, particularly with the rifle. Let us keep it that way.

USMC



SIBERIA

... a diversely peopled entity whose strength and weakness is an enigma



By Lew Shankowsky

IN THE WORLD'S MANY-RINGED circus of conflict, a glaring spotlight was suddenly turned on Korea. Yet, considering the strategic importance of Korea, very little is known about the territories which lie behind. This is regrettable. Behind Korea and Alaska, there is Siberia. We have a great deal to learn about this territory — both historically and for its immediate significance.

First, we must understand the immense strategic importance of Siberia. Through the possession of Siberia, the USSR qualifies as a world power because it controls a self-sufficient land-mass all the way from Central Europe to the Pacific Ocean and beyond, to the very shores of American territory. This continuous land-mass is not only a "heartland" of strategic redoubt, but also a strategic base for Soviet aggression in many directions. Thus, through Siberia, the USSR is a Near Eastern, Middle Eastern and Far Eastern power. Through Siberia, too, the Soviets are the neighbors of the USA. Because of Siberia, the USSR is also the leading arctic power — a fact which acquired great importance with the advent of inter-continental aircraft.

However, Siberia can easily cease being the redoubt of the USSR and become a basis for the collapse of Soviet power. Few of us know that this territory, of first-rate importance, has never been an organic part of Russia. It has never been "Russian" either historically or ethnically. It is today far less "Russian" than Massachusetts or Pennsylvania were "English" at the time of the American Revolution. The Cossacks, and not the Russians, conquered Siberia which had been under Tatar Khans since the 13th Century. The "Pizarro of Siberia" — Cossack Yermak, began the period of expansion in 1581; another Cossack, Deshnev, developed it still further — reaching the Pacific in 1648. Only the Tunguses and the Buriats around Lake Baikal offered the Cossacks any opposition and it was because of this Buriat opposition that the further expansion along the Amur River had to wait till the middle of the 19th Century. Then a chain of Cossack settlements grew up along the Amur and the Ussuri Rivers.

It is interesting to note that the conquerors of Siberia, the Cossacks, never considered themselves Russians. They considered and *still* consider themselves a separate nationality distinct from the Russians. This warrior and freedom-loving band lived in the independent, semi-military communities in the south-eastern and southern borderlands of the Slavonic world. It is true that sometimes they worked as frontiersmen for the Czars of Moscow, but it is true, too, that at other times they attacked the Czars in bloody uprisings (Razin, Bulavin, Pugachov) which nearly brought about the destruction of the Russian Empire. In 1917, the Cossacks of Don, Kuban, Terek, Astrakhan and other Cossack lands declared their independence from Moscow and fought with arms in hand against the Soviet Russian supremacy. The Soviet regime suppressed the Cossacks with fire and sword and refused to recognize their national identity. However the Cossacks have never become reconciled to the loss of their liberties and to the centralized Russian autocracy in its present form.

In 1941, after having advanced in the territory of the Don and Kuban Cossacks, the Nazis easily found collaborators among the Cossacks and they soon formed an entire cavalry corps made up of the Cossack prisoners of war. The Cossacks fought valiantly against the Soviets till the end of war, but soon after were forcibly repatriated by the British to the USSR.

By extraditing some 30,000 Cossacks (to be hanged, shot, or exiled) to Siberia, the British unknowingly destroyed the greatest element ever to exist in the fight against Bolshevism. It must be added that the Cossacks of Gen Panwitz's cavalry corps were never a part of Gen Vlassov's army, which after the downfall of the Communist regime planned to restore the united Russian Empire. They were separatists and fought under *atamani* of their own—Generals Krasnov, Shkuro and others, who also were handed over to the Soviets. At present the separatist movement is very strong among the Cossacks in exile who aspire to the establishment of a sovereign state—*Cossackia*—which would include all lands with the prevalent Cossack population, speaking a South Russian dialect in the Don and an East Ukrainian in the Kuban region. The idea is not without foundation; in fact, the Cossacks differ from the Russians through their mode of life, habits and glowing love of freedom.

At present, by far the largest part of the Siberian population are not descendants of the Cossack conquerors. Early in the 17th Century there were no more than some 20,000 Cossacks in all of Siberia. Today there are some 500,000 Siberian, Trans-Baikal, Amur and Ussuri Cossacks. Following the Cossack conquest in 1581 many freedom-loving people of Eastern Europe left their ancestral homes and set out for Siberia in search of independence and of a fresh start in life. Many who were unwilling to submit to the iron rule of Moscow's Czars made their way to Siberia, which looked to them like the far West looked to the similarly-minded people in America. The social composition of these early settlers showed also a strong resemblance to that of the USA. There were hunters and fishermen among them, the prospectors,

the ranchers and the farmers, the merchants and the industrial laborers. In addition, the central authority of Moscow sent compulsory settlers into Siberia—prisoners of war (Swedes etc.), convicts, exiles and sectarians. Most important among sectarians were the Old Believers (*starovyeri*) who under the leadership of Protopope Avvakum maintained the idea of the superiority of the old customs and traditions in the Russian Orthodox Church. Those descendants of the pure Slav population in Muscovy did not accept the ecclesiastical reforms of the Patriarch Nikon in the 17th Century who was supported by the Russian Czars. Therefore, they were persecuted and massacred. In the broad wastes of Siberia which were not easily accessible to the henchmen of Moscow Czars, the Old Believers found religious freedom to worship in their own way and to live with the traditions of their own. Another important group of compulsory settlers was the political exiles. They gave Siberia a tone of its own. This tone, an independent and uncompromising spirit, extended throughout Siberia and was found chiefly in its cities.

In the early '90s of the last century, a new influx of the voluntary settlers found its way to Siberia. These were farmers and most of them were Ukrainians and Byelo-

ussians who settled in far eastern and southern Siberia. As a result of this immigration, the far eastern (the so-called "Green Edge") and the southern parts of Siberia (the so-called "Gray Edge") became preponderantly Ukrainian. In some districts they formed over 80 per cent of the entire population. This cannot be overlooked as the Ukrainians are the bulwark of anti-Russian and anti-Soviet opposition. In 1918, a Third Ukrainian Congress convened in the city of Khabarovsk. It decided that the Far Eastern Territory populated chiefly by the Ukrainians be recognized as a part of the reborn Ukrainian State. Later, the Ukrainians of the Far East were among the staunchest supporters of the so-called Far Eastern Republic which existed until 1922. After the incorporation of the Far Eastern Republic, the Soviet authorities arrested most of the Ukrainian leaders and, in 1924, a monstrous trial was staged against them in the city of Chita.

The years of forced collectivization, and the subsequent policy of persecutions of all those who resisted the collectivization, i.e. the Ukrainians, Byelorussians, Cossacks and other minorities, have resulted in bringing into Siberia millions of non-Russians. Even the Soviet sources (*The Economic Geography of the USSR, 1940*) pointed out that "during the last 13 years (1926-1939) there was a considerable migration of people from the Ukrainian SSR and the Byelorussian SSR into the industrial centers of the Russian SFSR, especially in the new manufacturing centers." Because of such migration, "the population of the Ural region, of Siberia and of the Far East increased by 5,900,000." The influx of the non-Russians was still greater during WWII and has continued since. By the hundreds of thousands, Ukrainian workers, peasants and intellectuals, as well as engineers and technicians, have been forced to leave their homeland and transfer to Siberia.

The same policies are carried out in Byelorussia and in the Baltic lands. Thousands of prisoners of war (Germans, Japanese, Italians, Rumanians and Hungarians) were forced to remain in Siberia as "voluntary settlers." Additionally, there are millions of non-Russians in the

Cossack

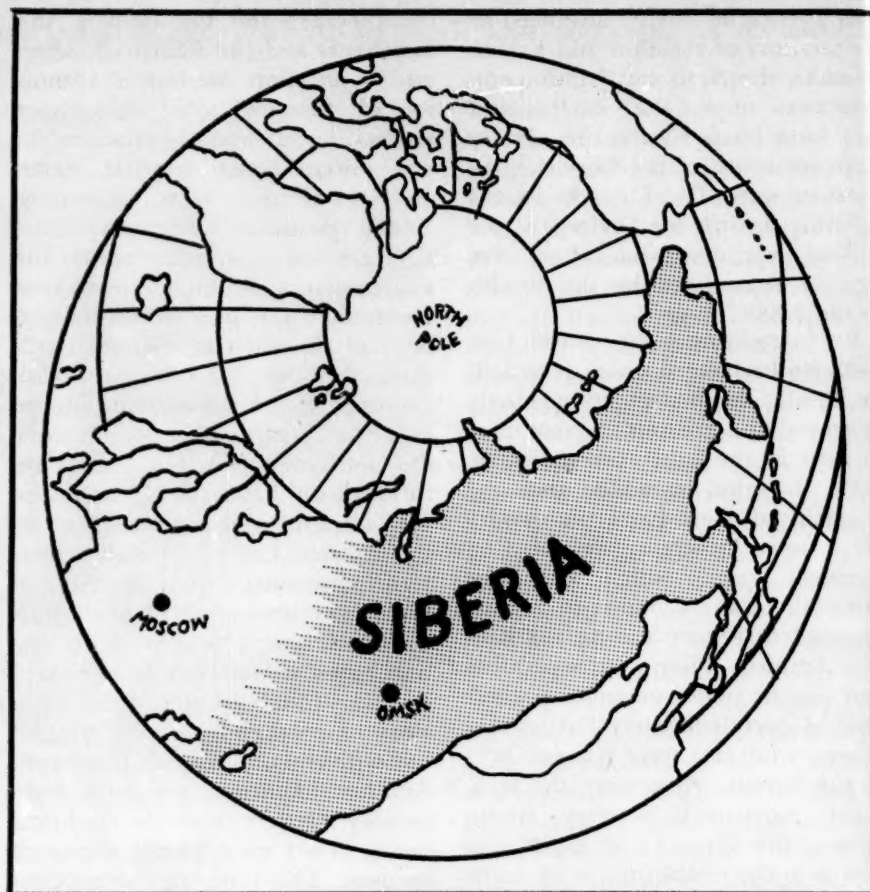


slave labor camps which together form huge territories administered by MVD. The population of those slave labor camps is estimated at 3-15 million and according to my computation is not less than 10 million. Most of the slave laborers (over 90 per cent) are non-Russians, chiefly Ukrainians, according to many authorities, among them Professor Ernst Tallgren, who was a prisoner in one of those camps (1940-1942).

Consequently, the population of Siberia increased rapidly. In 1911 it was put at 8,719,200. It numbered about 10 million at the outbreak of WWI. Twenty years later it was in excess of 25 million. Today, if we take as a basis for the computation the number of electoral districts (each of 300,000 inhabitants) we can say that the population of Siberia numbers some 26,700,000. However, such a computation is false; the population of Siberia numbers 40-43 million since political prisoners and members of the Soviet armed forces have not been included. This estimate is based on all available data of recent movements of Soviet populations including reports of the Ukrainian underground. This is not the first time that the Soviets have hung their statistical "iron curtain" over Siberia.

The vast majority of these 40-43 million people in Siberia represent a non-Russian racial stock: Ukrainian, Byelorussian, Cossack, Balt, Caucasian, Turkestanian, Polish, German and Jewish. Only some 20 per cent are of Russian racial stock. It must be noted that being of dif-

Buriat



Across the arctic — a neighbor of immense strategic potential

ferent racial stock, the newcomers to Siberia do not consider themselves as Russians, but as Ukrainians, or whatever. However, if they remain in Siberia, or live in Siberia for a long time, they soon commence to regard themselves as Siberiaks (Siberians). There is no doubt that the second and younger generations, even from the Russian racial stock, feel that way. Anyone who has ever lived in the USA or Canada can appreciate the generation of feelings of that sort. The people of the different racial stocks in the USA feel like Americans, not like British, Dutch, French etc.

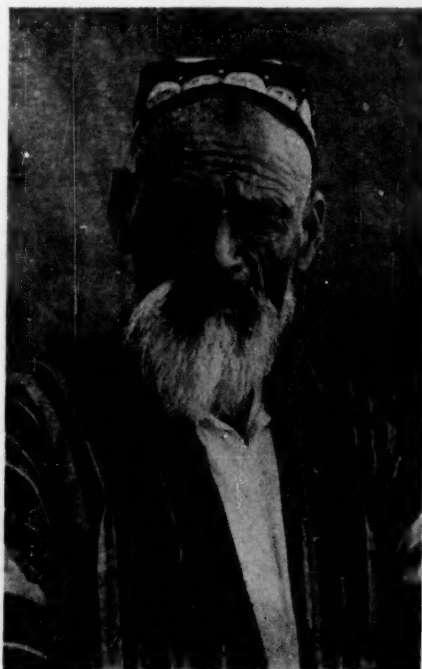
So it is in Siberia, and it is fact that 25 per cent of the Siberian population who belong to the second and younger generations consider themselves Siberiaks regardless of their racial stock — a distinct nationality from Russian. Here the analogy with the USA is striking. We can say that in many respects Siberia resembles America, and the Siberiaks the Americans. Like America, Siberia is a new country, rich in natural resources, in energy and in promise. Its size, its feverish activ-

ity and its youthful exuberance are typically American. The Siberiak is more of a pioneer, he is enterprising and he loves his freedom. He has much in common with an American pioneer—courage, honesty and bold plans. He speaks a dialect of Russian, but he has an endless contempt for the "Muscovites." Often he is a descendant of those who hated Russian tyranny, son or grandson of political prisoners who settled in Siberia. He despises all things that come from Moscow and hates "Muscovite" Czars and Commissars alike. The Soviets know this attitude of the Siberian people, who used to compose the best regiments of the Russian army (because of their intense spirit and proud self-consciousness). Therefore, they chose to appease the Siberiaks in order not to provoke them against the Kremlin. There is today much more freedom in Siberia than in any other territory of the USSR (disregarding, of course, the detention camps). But the Kremlin government, realizing the potential disloyalty of the overwhelming majority of the Siberian population is endeavoring to

strengthen the Communist element in Siberia by settling Young Communists, members of the Komsomol, in different parts of the country. Before WWII special settlements of Komsomol youth were made in the Far East, at the city of Komsomolsk on Amur at the border of the "Green Edge." At present, thousands of Komsomols are being encouraged to settle in the virgin lands acquired for Soviet agriculture in North Kazakhstan and the bordering part of south Siberia, near the mentioned "Gray Edge."

Taking all this into consideration, it is no wonder that the Siberiaks have always aspired to political freedom, to autonomy and separation from Moscow. The prevailing freedom-loving spirit of early settlers, political prisoners and the influx of freedom-loving Poles and Ukrainians contributed much to the development of Siberian separatism. In 1917, the Siberiaks established a government in Omsk which demanded autonomy for Siberia. Unfortunately, the major Allies in WW I did not understand the motives of the Eastern European and Northern Asian peoples for the disintegration of the Russian Empire. In the Ukraine and in Cossackia, in Turkestan and in Siberia those Allies gave their full support to the forces striving to restore the Russian Empire. In the Ukraine and in Cossackia the

Turkestanis



Allies supported the Czarist reactionary Gen A. Denikin with arms and war material instead of supporting the democratic Ukrainian government and its Ukrainian army fighting the Soviet Russian aggression. In Siberia, the Allied expeditionary forces and their subordinate Czechoslovak force helped the Czarist Adm Kolchak to assume power as "Supreme Ruler of Russia" instead of supporting the thoroughly democratic Siberian government. In the Ukraine, Gen Denikin fought the Ukrainian armies opposing the Bolsheviks with British arms, and thus helped the Bolsheviks to create a Frankenstein-like Soviet Russian empire now engulfing nation after nation. In Siberia, the White Guards of Adm Kolchak, allegedly fighting the Bolsheviks, turned their arms against Siberian "separatists," claiming all who resisted their robbery were Bolsheviks. In December 1918, Adm Kolchak, having secured Allied support, dispersed the Siberian government in Omsk with military force.

After Kolchak's defeat in 1919, it was an ex-lawyer from Chicago—Alexander Krasnoshchokov—who believed that a separate government should be set up in Siberia. He tried to do that without antagonizing the Japanese who held power over a large part of Eastern Siberia. Thus, the Far Eastern Republic was born in 1920. It was a democratic republic "representing the will of the people, as expressed through its duly-elected representatives and guaranteeing to all classes of society the democratic liberties that safeguard the peaceful development of social forces"—to quote the Declaration of Independence of the Far Eastern Republic of April 1920. The government of this Republic was modelled after that of the USA.

The creation of the Far Eastern Republic was not in the interest of Japanese imperialists. They decided to intervene and to set up a Japanese civil administration in the Far East. They helped raise to power Ataman Semyonov—a half Russian and half Buriat—one of the most hated followers of Adm Kolchak, and set him up as a Japanese puppet. The Siberian patriot Tripitzin formed a Siberian guerrilla army and fought the Japanese with success. The Japanese placed a price on his head,



Ukrainian

but were not able to catch him. It was the Reds who finally captured him and his wife (who was his chief of staff) and had them shot.

Under Allied pressure, the Japanese were forced to get out of Siberia. Now the Far Eastern Republic faced the Soviets alone. There was no chance of successful resistance. Early in 1922, the Red Army invaded the Far Eastern Republic which ceased to exist on 17 November when Kalinin issued a proclamation which merged the Far Eastern Republic with the Russian SFSR. Because of the prevalence of the Ukrainian population in the Far East, it should have been merged rather with the Ukrainian SSR.

Besides the European population of different racial stock, there are also nearly 170 groups of native peoples. Certain groups of these have features that show a strong resemblance to those of the American Indians. One group of these peoples is definitely Mongol in type and speaks a Mongol language—the Buriats (900,000) in the Lake Baikal area. In the Middle Lena Valley there are some 300,000 Yakuts, who are an outlying group of Turcic speaking peoples. There are Tatars in the Altai mountains (Oirots) and in the Irtysh Valley of Western Siberia. A strain of "Old Asiatics" bearing strong resemblance to both Eskimos and American Indians live in the north, northeast and east of Siberia. There are also some 100,000 Jews in Siberia, especially in Birobidjan, a Soviet-made national home for the Jews in the Far East.

A separate problem for the Soviet



Rugged, northern, frontier-like settlements contrasted to . . .

Asiatic colonial empire exists in what is officially termed Central Asia, called commonly Turkestan. With the plan to weaken Turkestanian resistance, the Red Russian Government in Moscow partitioned Turkestan into 5 component republics of the Soviet Union: Turkmen, Uzbek, Tadzhik, Kazakh and Kirgiz republic. The Turkestanian population of the Turkic and Iranian stock developed in the Middle Ages a flowering Moslem culture, which they try to preserve proudly. The Turkestanians are ardent Moslems and therefore strongly anti-Communist and anti-Russian. But Turkestan is not technically a part of Siberia.

In case of a shooting war against the USSR, Siberia surely will have a tremendous strategic importance. The United States must, therefore, turn attention to this area and its population.

Military thinking must not only consider Siberian military and industrial concentrations, but also the possibility of aiding extensive guerrilla operations in this area. The conditions for waging that type of warfare are excellent: deep forests and scattered settlements with friendly population. Special task forces could be trained as a military-political elite group. Composed of Balts, Byelorussians, Cossacks, Poles and Ukrainians, they could act as a rallying resistance center for all Siberian anti-Communists (Balts, Caucasians, Poles, Ukrainians, Turks etc). Questions of supplying this group would be of primary impor-

tance for the success of such task forces.

Military planning must also consider the liberation of the inmates of concentration camps and the organization of these inmates into an anti-Soviet force. A successful attempt at their liberation would not only have military importance, but also a political one. Psychologically, it might have a very jarring effect upon the entire population of the USSR. The anti-Soviet sentiments

of the Siberian population could be combined with the local separatist movement of the Sberiaks.

Politically, the population of Siberia might be able to establish the United States of Siberia. This is not a fantastic project, but it is based on realities as: 1) The desire to get rid of Russian domination is no less today than it was in 1917-1920; 2) Siberia as a sovereign state with the heavy industry of Magnitogorsk, Kuznetsk, Stalins, Komsomolsk and Magadan, with oil of the Sakhalin and Kolyma gold areas, with its belt of black-earth and the gold mines of Yakutia would be an economically self-sufficient area with its riches and communications put to the benefit of the world; 3) Deprived of Siberia, Russia's pressure on the Pacific and Eastern Asia would be once and forever rendered impossible; 4) By establishing a free and sovereign United States of Siberia, Siberia would cease being a backwater of history, a huge concentration camp with slave laborers "contracted" for the job by MVD. It would become an area of first-class magnitude, a free country rich in natural resources, brimming with the enterprising activity of its varied freedom-loving people.

US MC



. . . growing cities like Omsk, symbolize a new vitality

passing in review

BOOKS OF
INTEREST TO
OUR READERS

Modern Version . . .

FIFTEEN DECISIVE BATTLES OF THE WORLD—By Sir Edward S. Creasy. Military Service Publishing Co. 471 pages; maps; notes. Harrisburg: 1955. \$3.50

"We should bear in mind also the inseparable connection between the state religion and all legislation which has always prevailed in the East . . . grasping at all civil administration, claiming supreme control of education, stereotyping the lines in which science and literature must move, and limiting the extent to which it shall be lawful for the human mind to prosecute its inquiries."

The quoted passage, so aptly describing today's conditions behind the Iron and Bamboo Curtains, was written more than a century ago by Sir Edward Creasy in his *Fifteen Decisive Battles of the World*. Creasy was describing the conditions that existed in the Persian monarchy—then the bugaboo of the known world. He goes on to explain why it was so important that a comparative handful of Greeks defeated an overwhelmingly superior enemy force at Marathon, an adventure that took place some 2,445 years ago come next Whitsun according to my calculations.

Since Creasy first published his book in 1851, two major wars involving most of the world have been fought. Besides these main events there have been innumerable smaller bickerings, skirmishings and police actions. Not major wars, perhaps, but none the less deadly and bitter for all of that.

In recognition of the vast changes that had taken place in the world since the original appearance of Creasy's work, the publishers undertook an experiment in 1943: in that year they brought out an edition which amplified the basic battles by including some of those of the 20th Century. They added 9 other battles that had either taken place after Creasy's time, or which modern historians felt should be ranked at least on a par with Creasy's selections.

In the current edition under review, the publishers have abandoned the 1943 experiment to include post-Creasy additions and have adhered to the original model. This approach is, in my opinion, a happy decision. But there are some changes and they are all for the good. Thanks to the literary skill of the late



Bettmann

Robert Hammond Murray, the rather involved prose style Creasy affected has been brought into battery with modern usage; the text has been rendered more readable and less unwieldy, while still retaining the essential character and flavor of the original. Extraneous passages which today have no bearing on the case under discussion have been deleted. Murray has also substituted Fronde's colorful and detailed account of the destruction of the Spanish Armada in place of the quotation by Creasy from Hakluyt's rather pedestrian account.

The first edition of Creasy's book came out at a time when Waterloo could easily be remembered by living Englishmen. They recalled with pride the manner in which the Foot Guards conducted themselves at Hugu mont, in spite of Ney's earnest efforts to turn them out of that place; and the Scots Greys charging at the gallop with the Highlanders of the 92d clinging to their stirrups.

But to us these matters are a long time gone and there is no man alive who can recall them. Today, in the latter half of the 20th Century in this best of all possible worlds, men's minds are apt to be bemused by the sinister mushroom-shaped pillar of fire and smoke that marks the most recent explosion.

Why then, you may wonder, should anyone bother with reading the dusty tales of ancient battles fought by antediluvians who wouldn't know a positron from an electron?

I can think of at least one very good reason. Granted you may not find any detailed instructions as to the specific tactics to be employed under conditions of nuclear warfare. But you will find something that is just as interesting—and even more important. And that is the behavior of men and how they react. Men under every kind of condition, struggling under very great odds, surmounting fantastic difficulties, performing great feats of arms and, in the end, succeeding or failing according to their destiny. It is of this that Creasy writes, of the men who, often unknowingly, for a brief space of time hitchhiked a ride on the coat tails of Destiny and by their actions changed world history.

We are prone these days, it seems to me, to think almost exclusively in terms of electronics, of sonic speeds, of nuclear power and of mechanical gadgetry. We tend to forget that machines are fallible, that the awesome nuclear weapons are finite—rather than infinite—weapons. And Norman Cousins to the contrary, man is not obsolete. Not yet, anyway.

It may well be that the day will come

when interplanetary missiles equipped with cobalt warheads will cruise endlessly in outer space, waiting only for target directions from some control panel buried deep in the bowels of the earth and tended by a clutch of scientists. When that day comes we will have arrived at a reasonable facsimile of war by proxy — impersonal and convenient. We yearn for some wonderful device that would remove forever the spectre of dirty, tired men taking their casualties and grimly fighting their way forward, inch by inch, against a clever and determined enemy. But we have not yet found such a device and I rather doubt that we shall. Weapons change but unpredictable man remains constant.

Man is the one indispensable element for all our high-flown military plans, for all the lofty reaches of grand strategy. Sometimes I think we are in danger of overlooking this simple fact. Simple—but vital and as true today as it was in 490 BC.

For the reason I have mentioned above, a reading of Creasy should be a worthwhile experience for any professional not familiar with this military classic. For those who have read it in the old edition, this present version will be a pleasant renewal of a sound friendship.

Reviewed by Col R. McC. Tompkins

Blurred Picture...

PORTRAIT OF PATTON—By Harry H. Semmes, 300 pages. New York: Appleton—Century—Crofts, Inc. \$6.00

Harry H. Semmes, lawyer, soldier and friend of Gen Patton through the World War I and II cycle has sought to present an informal biography in his *Portrait of Patton*. To assist him in his work, he has had access to many sources of material never before available.

The early chapters move rapidly through Gen Patton's boyhood days, West Point, World War I and the years to World War II. This first part is bound together by the author's nostalgic thoughts of events long dimmed in memory. Events, which in their occurrence had no significance lose their value when dusted off and garnished with hindsight.

As the biography continues, the theme carries through World War II, the victory, then death of Gen Patton. Out of these chapters there emerges what is to be the "Portrait." Except for the frequent insertions of Gen Patton's fine poetry, excerpts from his diary and letters and the quotation of a brilliant letter, the Portrait is given little opportunity to shine through. The letter mentioned above, written by Mrs. Sallie Flint, widow of Col "Paddy" Flint (two

DSCs and the example for many leadership problems) is the most interesting reading in the book. Its few lines establish the Portrait. Except for the above, the remainder of the book as a combination of half-history, bold assumptions and loose organization suffers from too much author and not enough Patton.

Reviewed by Maj M. D. Volkert

Safety Is Forward...

ASSAULT BATTLE DRILL—By James C. Fry. The Military Service Publishing Company. Harrisburg, Pa. Illustrated. \$2.00

During World War II more than 100,000 infantrymen were killed in action. The greatest number of these casualties met death in close combat at the extreme front—closing with the enemy at ranges of 200 yards or less. Thousands of those who met their death in this manner did so because they had not been taught that to exist under such conditions, co-ordinated teamwork is necessary. Control is the most difficult, and yet the most important factor that can be used to influence the outcome of battle once troops have been committed. The time when control is most critical is when the foremost line of riflemen meet the enemy in the final clash. It is at this point in the conflict that success depends entirely upon the infantryman exercising the utmost in individual initiative.

Current training in marksmanship and tactics is not wholly realistic. Young officers and enlisted men who have not been in actual combat are taught to fire with accuracy on the rifle range and to hit targets only half the size of a man's body at several hundred yards. Simultaneously they have been taught to close with the enemy fully erect, utilizing assault fire as they walk towards the enemy in the final assault. No explanation is given them as to how the enemy, also proficient in small arms marksmanship training, will be restrained from killing them. Emphasis in all the ground services is given to supporting fires as the cure-all which will drive the enemy to cover until overrun by advancing friendly troops. In contradiction to this, the enemy's capability to deliver accurate, heavy caliber supporting fires, or to direct small arms fire on our troops as they move forward, is minimized, and troops are led to believe that they will be able to take a position from the enemy by sheer preponderance of friendly supporting fires. The fallacy of this type of instruction is obvious. At some point in the advance, supporting fires must lift in order to allow infantry to seize the objective. When this occurs the infantryman must still go forward—into heavy enemy small arms fire—and alone!

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Assault Battle Drill is a book written, in the words of the author, "to help the front line soldier understand not only *what* must be done to take an objective in battle, but also *how* to accomplish that mission!" Its contents can be placed in a category somewhere between the material presented by S. L. A. Marshall, who deals heavily in statistics as well as personalities and that written by LtCol Robert B. Rigg, who does an excellent job at explaining the mechanics of battle training without overemphasis on the psychological aspects of the game.

General Fry delves a little into both and comes up with a workable answer. Through the medium of historical examples from WW II and Korea, the author strives to show the reader that the majority of US troops did, in fact, lack adequate training in *how* to react with rapidity to sudden and unexpected battle situations. By the same method, he illustrates the fact that those troops who had been through training similar to *Assault Battle Drill* came through with flying colors.

The narrative is broken down into 11 chapters. Each chapter deals with certain specific elements which go to make up *Assault Battle Drill*, including drills for the individual, fire team, squad and platoon. Patrolling is covered in all its aspects. The last chapter is devoted to the requirements of *Assault Battle Drill* for future warfare needs. Throughout the book a concerted effort is made to drive home its main point—that of training the infantryman so that he has the confidence, initiative and aggressive behavior necessary to keep him moving forward against the enemy when the conditions of close combat preclude the execution of adequate verbal orders or recognizable hand and arm signals by squad and platoon leaders.

The facts set forth in *Assault Battle Drill* and the training methods described by the author are not new to Marine troop leaders. The liberal seeding of such truisms as "Safety is forward" and "Men fight as they are trained" are not new either. Their inclusion in the text however, does not detract in any way from the lesson which the General is attempting to teach, for they are in fact, the very things which men must know and *believe* in, if the individual is to carry out his combat mission with *maximum* efficiency.

The book, in its entirety, is an honest effort, by an officer with considerable battle experience, to come up with a training solution which will enable unit leaders to prepare the individual infantryman for the moral and physical requirements of close combat.

Reviewed by Maj G. P. Averill



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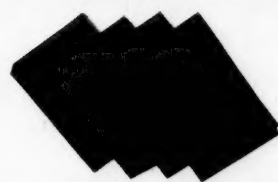
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